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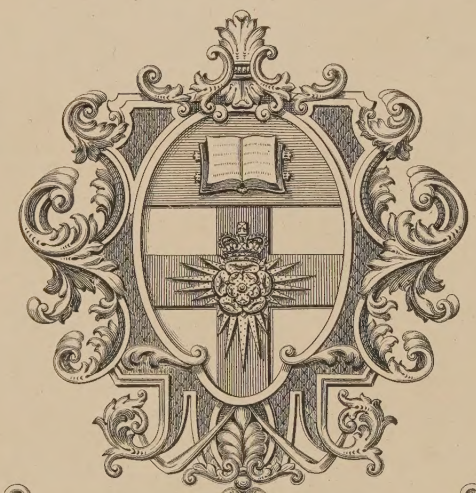

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NAVY (HEALTH).

RETURN to an Order of the Honourable The House of Commons, dated 16 February 1866;—*for*,

A COPY

OF

STATISTICAL ABSTRACT

OF THE

HEALTH OF THE ROYAL NAVY,

1st July 1864 to 30th June 1865.

(*Lord Clarence Paget.*)

Ordered, by The House of Commons, *to be Printed,*
16 *February* 1866.

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INTRODUCTORY REMARKS.

Introductory Remarks.

The following Statistical Abstract has been drawn up with the view of affording the latest information on the Health of the Navy, from authentic sources. It embraces the twelve months included between the 1st of July 1864 and the 30th of June 1865, and gives a general view of the comparative health of ships and stations during that period, divested as much as possible of professional technicalities. It is meant to precede, but not to be considered as a substitute for, the more comprehensive Report on the Health of the Navy which has hitherto been annually laid before Parliament; and which, apart from its affording a larger amount of statistical information than can be obtained from the returns from which this abstract is compiled, is considered valuable as a means of furnishing information as to the probable causes of disease and mortality on the different stations on which our ships are employed, and of recording the experience of medical officers on various important sanitary points.

In the remarks on the different stations, and in the tables in the Appendix, it will be perceived that the vessels are arranged according to the rates or classes to which they belong; and that the total sick, invaliding and death ratios of the different classes is shown. It is to be observed however, that no conclusion can as yet, with justice, be drawn from these ratios, as to the influence exerted by the construction of different classes of vessels on the health of their crews. It may, in point of fact, be said in a general way,

Introductory Remarks.

that the only influence of this kind likely to be exerted by a particular class of vessel, is in virtue of its special adaptation for particular duties. Ships, for example, drawing little water are likely to be stationed in rivers and other localities near the shore, which larger vessels cannot approach; and, by being thus brought more within the range of various malarial agencies, are liable to have a larger sick rate in consequence. This will suffice to show, that as a rule it is the duties on which ships' companies are employed, and the localities on which they may be stationed, rather than the construction or class of vessel in which they may be serving, that affects their health. There are of course in the construction of all vessels certain conditions absolutely necessary, to ensure a high health-rate to their crews. The most obvious of these have reference to the supply of light and air to the decks upon which the men sleep and mess. Where ample cubic space, and a good supply of natural light are provided on those decks, attention being paid to the most ordinary rules of ventilation, all may be said to be done, in so far as construction is concerned, to make the vessel in the most habitable condition. With the exception of one or two vessels, of a class which may be said to be as yet in an experimental stage, viz., the ironclads, these conditions are perhaps as amply fulfilled in the present ships of the Royal Navy as is compatible with their character as ships built for warlike purposes, and obliged to carry a very large number of men. In two ironclad vessels, it will be seen in the following Report, the Royal Oak and the Prince Consort, the absence of natural light on the mess deck was thought to have a deteriorating effect upon their crews, but this defect has since been remedied in both vessels.

In drawing up the following Report the average ratios of sickness, invaliding, and deaths on the different stations and in the Total Force, for a period of seven years (from 1856 to 1862 inclusive), have been taken for the purpose of comparison with the same ratios during the twelve months for which this abstract is compiled, and it is gratifying to find that under all these heads, the difference is markedly in favour of the present, compared with the septennial period.

It

Introductory Remarks.

It will be perceived by referring to Table III. in the Appendix,* that during that period the average ratio of disease and injury placed on the sick list was 1510·5 per 1,000, which is as nearly as possible three entries on the sick list for every two men of the force.

* *See* Appendix, Total Force.

The Total Force in the service afloat, between the 1st of July 1864 and the 30th of June 1865, corrected for time, was 51,225, and the total number of cases of disease and injury in the returns, was 67,552, which is in the ratio of 1318·8 per 1,000. This is a very low sick-rate indeed, being nearly 200 per 1,000 under that of the average for seven years. The following table shows the ratios on each station.

Stations.	Ratio per 1,000 of Cases of Disease and Injury.
Home	1004·2
Mediterranean	1332·8
North America and West Indies	1391·7
South East Coast of America	1873·
Pacific	1575·1
West Coast of Africa	2145·6
East Indies and Cape of Good Hope	1465·
China	1731·8
Australia	1281·6
Irregular Force	1693·6

It will thus be seen that the stations which were in excess of the average septennial ratio, were the South-east Coast of America, the Pacific, the West Coast of Africa, the China Station, and the Irregular Force.

The West Coast of Africa abounds in many of the elements that conduce to cause disease, and it is therefore not surprising that the crews of vessels employed upon it should suffer to such a degree as to occasion an excess over the average ratio of sickness in the Total Force.

On the China Station, dysentery and small-pox prevailed extensively in the marine brigade in Japan, and the former disease

Introductory Remarks.

disease was also epidemic in the Conqueror. Otherwise, there was not much severe sickness on that station, nor, indeed, on any of the other stations which were in excess of, or below, the average ratio.

The number of cases of disease per man on the Home Station was 1·; on the Mediterranean, 1·3; on the North American and West India, 1·4; Brazil, 1·8; Pacific, 1·1; West Coast of Africa, 2·1; East India and Cape of Good Hope, 1·4; China, 1·7; Australian, 1·2; and in the Irregular Force, 1·6; giving an average of 1·3 for the whole force, which is below the average for seven years, viz., 1·5.

CLASSES OF SHIPS.

The following table shows the ratio per 1,000 of cases of disease and injury in different classes of ships, and in the marine detachments, serving abroad:—

RATES.	Ratio per 1,000 of Mean Force.	RATES.	Ratio per 1,000 of Mean Force.
Ironclads - - -	1279·6	Drill Ships - -	791·6
First Rates - -	1421·8	Coast Guard Ships -	1125·6
Second Rates - -	1121·4	Training - - -	918·8
Third Rates - -	1646·4	Yachts - - -	769·4
Fourth Rates - -	1316·7	Troop Ships - -	2040·5
Fifth Rates - -	1080·7	Training Brigs - -	1174·
Sixth Rates - -	1724·5	Receiving Ships -	1141·3
Sloops - - -	1733·3	Hospital Ships -	4533·3
Gun-vessels - -	2218·2	Survey Ships - -	2100·
Steam-vessels - -	1530·5	Floating Battery -	1250·
Gun-boats - -	2091·1	Store Ships - -	1196·6
Stationary Ships -	748·9	Marine Detachments	1710·5

It appears from this table that the vessels that exceeded the average ratio of sickness for the septennial period, were 3d rates, 6th rates, sloops, gun-vessels, steam-vessels, gun-boats, troop ships, and one hospital ship.

THIRD RATES.

There were only two ships of the third rate in commission, one stationed in the Mediterranean, the other in the Brazils. Neither were by any means unhealthy vessels; the former had her sick-rate increased by a number of cases of common cold which prevailed during inclement weather: and the latter

latter vessel, although exceeding the average ratio of the Total Force, was considerably below the mean sick-rate of the station on which she was placed. Introductory Remarks.

Thirty-one vessels altogether of this class were in commission; those which showed the highest sick-rates being on the Mediterranean, Pacific, West Coast of Africa and Cape Stations. On all these stations the sick-rate was attributable to their being employed in unhealthy localities, in the Mediterranean on the Coast of Syria, in the Pacific on the Coast of Central America, and on the Cape Station in the Mozambique Channel. SIXTH RATES.

Forty vessels of the sloop class were employed during the twelve months, and the highest sick-rate shown by them was on the South-east Coast of America, and was attributable to an epidemic of influenza occurring in one vessel, and to service in another on the very northernmost parts of the station where the crew suffered from various affections of a more or less trivial character. On the Mediterranean and Australian Stations, the ratio in this class of vessels was below the average rate for the septennial period. SLOOPS.

The sick-rate in this class of vessel had a very extensive range, being as low as 1070·1 per 1,000 of mean force on the Mediterranean Station, while in China it was as much as 2843·3. Perhaps no class of vessel illustrates better what was stated above as to the localities in which ships are stationed having more to do with the health of their crews than the construction of the vessel itself, than is shown in the returns from this class, for it will be seen by referring to the table in the Appendix * that, while the Surprise, with a complement of ninety-five men stationed in the Mediterranean only shows a ratio of 589·4 per 1,000 of mean force, the sick-rate in the Coquette in China with a complement of eighty-five men, was 3,647. On the West Coast of Africa the mean sick-rate of the gun-vessels was 2348·8 per 1,000; in the Mediterranean it was 1070·1. GUN VESSELS.

* *See* Appendix, Total Force.

The

Introductory Remarks.

STEAM VESSELS.

The excess of sick-rate in these small vessels is very little above the average ratio, and is altogether attributable to the sickly condition of the crews of the Investigator and Antelope on the West Coast of Africa, the former vessel having been employed continuously, either on river service or in the lagoon at Lagos.

GUN BOATS.

Thirteen gun-boats were in commission, and of these one only was stationed on the West Coast of Africa. This was, however, an exceptional vessel altogether, being permanently stationed in the Lagos lagoon. She had a very small complement of Europeans, and although every possible care was taken of them, and they were never even allowed on shore excepting in charge of a petty officer, the pestilential nature of the locality was evidenced by the fact, that her returns show a higher sick-rate than those of the same class of vessels on any of the other stations. The ratio of sickness in the gun-boats serving in China is very little above the mean ratio of the station.

The sick-rates in the troop ships, and in the hospital ship, do not call for any comment.

IRON CLADS.

It is particularly satisfactory to find that so far as present experience justifies an opinion, the iron-clad vessels are likely to prove at least as healthy as those not iron-clad. In the present returns they are not only below the average septennial ratio as regards sickness, but below the mean ratio of the period. The individual vessels of this class that exceeded the average ratio, were the Achilles, Enterprise, and Research, all newly-commissioned ships in which a high sick-rate would naturally be expected, and in none of which was there any sickness that could in any way be referred either to the construction of the ship, or the material of which it was formed. Notice has already been taken of the Royal Oak and Prince Consort, so that they need not again be referred to here.

Invaliding.—The average ratio of invaliding in the Total force during the septennial period, was 35·6 per 1,000 of mean force. During the present period, it was 34·9.

The

The following table shows the ratio of invaliding on the different stations and in the Irregular force:—

Stations.	Ratio per 1,000 of Mean Force Invalided.
Home	27·3
Mediterranean	38·7
North America and West Indies	25·
South East Coast of America	26·9
Pacific	44·2
West Coast of Africa	70·9
East Indies and Cape of Good Hope	37·2
China	65·5
Australia	26·7
Irregular Force	22·6

The physical character of the West Coast of Africa is such that malarial fevers, with all their train of consequences, abound upon it. It is doubtless to this fact, that the high rate of invaliding on this station is attributable, more than one-half of those discharged in this way, being rendered unserviceable by fevers or their sequelæ. It is to be borne in mind, however, that the loss to the public service by invaliding is, in a great many instances, by no means a final one; large numbers of the men so disposed of, recovering after their return to England, and rejoining the service.

Although the ratio of invaliding in the China station, is much above the average ratio of the total force, it is fractionally below the average ratio of the station for the septennial period. The high invaliding rate on this station is attributable to the peculiar character of the diseases most prevalent upon it, which renders removal from the climate necessary for the preservation of life.

On none of the other stations did the ratio of invaliding so much exceed the average as to call for any comment.

Deaths.

Introductory Remarks.

Deaths.—The average ratio of mortality of the Total Force in the service afloat for the septennial period, was 17· per 1,000 of mean force.

The following table shows the death-rate on the different stations during the present period:—

Stations.	Ratio of Deaths per 1,000 of Mean Force.
Home - - - - - - -	7·5
Mediterranean - - - - - -	8·3
North America and West Indies - - -	15·9
South East Coast of America - - -	*103·8
Pacific - - - - - - -	8·1
West Coast of Africa - - - - -	28·3
East Indies and Cape of Good Hope - -	20·
China - - - - - - - -	28·7
Australia - - - - - - -	11·4
Irregular Force - - - - - -	5·5

* 87·5 of this ratio is attributable to deaths occasioned by the loss of the Bombay.

There were 714 deaths altogether in the Total Force; 270, or considerably more than one-third of which were attributable to injuries or drowning. The total death-rate was 13·9 per 1,000 of mean force; excluding deaths by violence and drowning, it was only 8·6.

On the different stations, the ratios of death per 1,000, from disease alone, were as follow: on the Home Station, 6·2; Mediterranean, 4·4; North America and the West Indies, 12·9; 6·3 of this being referable to yellow fever; South-east Coast of America, 5·7; Pacific, 5·1; West Coast of Africa, 19·5; East Indies and Cape of Good Hope, 13·6; China, 20·4; and Australia, 6·1. In the Irregular Force, the death-rate from disease alone was only 3·7.

The

The following table shows the total number, and the nature of the deaths from injuries and drowning on each station :—

Stations.	Killed by Falling from Aloft.	Drowned.	Wounds.		Suicide.	Various.			Total.
			In Action.	Acci-dental.		Suffocated by Food in Windpipe.	Alcoholic Poisoning.	Missing.	
Home - - -	4	15	–	4	4	1	1	–	29
Mediterranean - -	6	18*	–	6	–	–	1	–	31
North America and West Indies - - -	9	6	–	1	1	1	–	–	18
South-east Coast of America - - -	2	98†	–	2	–	–	–	–	102
Pacific - - -	1	5	–	1	–	–	–	–	7
West Coast of Africa -	–	12	1	2	–	–	–	–	15
East Indies and Cape of Good Hope - -	2	8	3	1	–	–	–	–	14
China - - -	1	14	19	7	–	–	1	–	42
Australia - - -	1	4	–	–	1	–	–	1	7
Irregular Force - -	1	1	1	2	–	–	–	–	5
Totals - - -	27	181	24	26	6	2	3	1	270

* 11 by capsizing of Orlando's cutter. † 91 by loss of Bombay.

In conclusion, and with reference to sick returns generally in the Royal Navy, it is to be borne in mind that a very large proportion indeed of the sick-rate in ships is derived from affections of so trivial a character, that the only reason men are placed upon the sick-list on account of them is to obviate their becoming aggravated; the seaman's duties, as has been remarked in a former Report on the Health of the Navy, involving a constant demand upon physical exertion so opposed to all the requirements of the healing art as to render it absolutely necessary to pay much more attention to trifling ailments and injuries than their own immediate importance would seem to call for.

Alex. E. Mackay, M.D.

Admiralty, Somerset House,
6 February 1866.

HOME STATION.

1st July 1864 to 30th June 1865.

Home Station.

THERE are five different commands on the Home Station, viz.: The Nore, Portsmouth, Plymouth, Cork, and the Channel Fleet. With the exception of the Channel Fleet, very few of the vessels employed in these several commands have duties to perform in any way analogous to those which form the effective force on foreign stations; in fact, they consist chiefly of stationary ships,—coast-guard ships, training ships, guard ships, store-ships, and small steam vessels ordinarily employed as tenders.

The diseases which abound most on the Home Station are those which affect the organs of respiration, venereal diseases, and rheumatism, complicated in many cases with syphilis. It may be assumed that the operation of the Contagious Diseases Act is not yet sufficiently extended to confer that amount of security from these diseases that was hoped for; hence, as yet, there has been but little or no decrease in the amount of venereal disease contracted by ships' companies stationed in, or fitting out at, the home ports.

The ratio of cases of sickness and injuries of all kinds entered on the sick list, for a period of seven consecutive years, has been 1125·5 per 1,000 of mean force.

It will thus be perceived by the accompanying Table, that the following vessels exceeded that ratio:

IRON CLADS.

Achilles - - -	2140·4	Prince Consort -	1407·2
Defence - - -	1251·1	Research - -	2096·0
Enterprise - -	3160 0		

The Achilles was only commissioned on the 16th of September 1864. It was, therefore, natural to suppose that her sick list would be high, it being the first year of her com-

Home Station.

IRON CLADS *continued.*

mission. Venereal diseases constituted by far the largest proportion of her sickness, but there were many cases of trivial injury which required surgical treatment. Rheumatism and catarrh also prevailed to some extent, the former chiefly amongst the stokers.

In the Defence, which has been three years in commission, the ratio of cases does not very largely exceed the average for seven years. Venereal diseases, ordinary colds, rheumatism, and boils, are the most prominent affections in this vessel.

The largest ratio of cases was in the Enterprise; the prevalent affections, however, were of a trivial nature, consisting chiefly of catarrhs, venereal diseases, boils, and rheumatism. The Enterprise was commissioned in May 1864, and the surgeon, with justice, attributes the large number of cases on the sick list to the habits, antecedents, and condition of the men on joining. He states, that the lower deck, on which the men are berthed, is rather low, but it is wide and open, and contains ample cubic space for the number of men.

In the Prince Consort the sickness was not materially in excess of that usually observed in a newly-commissioned ship; it consisted mainly of venereal and catarrhal affections, diseases of the skin, and boils. This vessel was commissioned in January 1864. The surgeon attributes a large proportion of the affections which prevailed in her to the fact that the main-deck was imperfectly ventilated by small, narrow ports, and that the mess-deck was only lighted by artificial light, and was necessarily more or less gloomy. These circumstances, he thought, had a prejudicial effect on the physical condition of the sick. The patients generally exhibited a cachectic appearance, and he remarks that one-half of the whole number of cases occurred amongst men and boys between the ages of 15 and 25, when strength is presumably less confirmed. The condition of the vessel, in so far as light and ventilation were concerned, was to a considerable extent remedied at the time when the last return from the ship was sent in; but there had not been sufficient time to judge of the effect of the improvement on the health of the ship's company.

The Research was also a newly-commissioned ship, and the most prominent affections in her were, as in the other vessels, catarrh, rheumatism, venereal diseases, and skin diseases. The surgeon thought the prevalence of the catarrhal and rheumatic

rheumatic affections was probably due in some measure to the cold iron beams over the hammocks ; he also thought that the dampness caused by the condensation of the breath on the iron may have been productive of injurious effects. The berthing of the men was very good, and there was ample cubic space on the lower-deck for the complement.

The remaining iron-clad vessels in which the sickness was below the average ratio for seven years were, the

Black Prince - -	817·3	Royal Sovereign -	937·5
Hector - - -	996·	Warrior - -	788·4

Of these the Black Prince and the Warrior had been long in commission, the former nearly three years, and the latter over four ; there was therefore nothing peculiar in either to call for comment in this place. Venereal diseases caused the largest loss of service.

The Hector, commissioned in January 1864, shows a very low ratio of sickness for a newly-commissioned ship. Early in the year a good deal of sickness, in the shape of catarrh, sore-throat, ulcers and boils, prevailed. This depended, the surgeon thinks, on the state of the decks, which, once wetted, never dried ; dry-holystoning was therefore adopted in all the compartments of the vessel, with the exception of the engine-room, and to that measure, and the use of fuel-stoves, he is inclined to attribute the improved sanitary condition of the men. He says, that after these measures were adopted the crew experienced great comfort ;—and the condensed vapour, which used to accumulate in large beads on the beams overhead, and ran down the ship's sides, almost entirely disappeared. He speaks in a qualified manner of the ventilation of the vessel, though it was more perfect than could reasonably be hoped for in a vessel constructed like the Hector.

The Royal Sovereign was an exceptional vessel in many respects. She was commissioned on the 7th of July 1864, and paid off on the 14th of October of the same year, to be re-commissioned on the following day, with a considerably reduced complement. During the period embraced in the returns from this vessel, she was undergoing alterations of one kind or another, involving, it may be presumed, the hulking of the ship's company for considerable periods;

Home Station.

IRON CLADS *continued.*

these circumstances consequently deprive the returns of any value as a record of the influence of the construction of this class of vessel upon a ship's company. The most prominent affections on her sick list were of a catarrhal, venereal, or rheumatic character.

SECOND RATES.

The only seagoing vessel of this class, the Edgar, was somewhat in excess of the average ratio of sickness. She had been upwards of three years in commission, and it may therefore be presumed that her ship's company were in good average condition. On referring to the nosological returns sent in to office, it appears that by far the largest proportion of sickness arose from venereal disease, there having been comparatively very little active disease of any other kind in the ship. The prevalence of syphilitic diseases, of course, is not affected by the length of time a ship may have been in commission, but almost altogether by the opportunities afforded to the ship's company of contracting them. The surgeon of the Edgar, in one of his quarterly returns, says, of the cases sent by him to hospital, "more than one-half of the whole number sent have been for syphilitic disease, which seems, year by year, to be rather on the increase in our Home Ports. The towns of Weymouth and Dorchester are no longer free, and the arrival of the Channel Fleet at Portland is followed by an influx of prostitutes from the other ports to these towns, where they become fresh foci of disease in the surrounding districts."

FOURTH RATES.

The only two vessels of the fourth rate were the Aurora and Liverpool, in both of which the ratio of sickness was somewhat in excess of the average, though in the Liverpool the excess was trifling.

For several months the Aurora was on the West India Station, but during the remainder of the time she formed one of the Channel Fleet. She was commissioned in the winter of 1863, and therefore may be regarded as a newly-commissioned ship. The diseases most prevalent on board were catarrh, venereal, rheumatism, and affections of the skin and cellular tissue. Cases of diarrhœa were frequent in the Michaelmas quarter of 1864, but they were not of much importance.

The Liverpool was about seven months on the Home Station during the period embraced in this report. She was commissioned early in 1863, so that her men must have been

in

Home Station.

FOURTH RATES *continued.*

in fair average condition. The ratio of sickness furnished by her returns is but little in excess of the average, and the diseases were for the most part of a trivial character. The greater proportion of the cases indeed were common colds and syphilis, following the arrival of the ship in England from the West Indies.

STATIONARY SHIPS.

These vessels are chiefly the flagships, guard ships of reserve, and gunnery ships, stationed at the different ports. They show a low rate of sickness, which may be accounted for by the fact, that a considerable number of the men serving in them are married; and further, that in their duties they are not exposed to the vicissitudes of weather and the risk of casualties to which the men in ordinary service are liable.

The vessels of this class, in which the ratio of sickness was above the average for seven years, were the

Canopus - - -	1329·2	Fisgard - - -	1263·4
Excellent - -	1141·2	Formidable - -	1175·

In none of these, however, was the ratio much in excess of the average, nor in any of them was there severe disease. In the Canopus, venereal diseases and boils were frequent, while in the Excellent, casualties of different kinds, but mostly slight in character, were not uncommon. Though in all these vessels there was a large amount of venereal disease, it prevailed almost entirely amongst the young unmarried men.

DRILL SHIPS.

The ratio of sickness in all these vessels is under the average, and in some of them very much; compared with the general service, however, the duties of their crews are altogether exceptional. The ships themselves are appropriated for drilling the men of the Royal Naval Reserve; their complements are small, and with the exception of three or four ship-keepers they all live on shore. It will therefore be obvious, that no comparison whatever can be drawn between vessels of this class and other vessels in the service,

COAST GUARD SHIPS.

Frigates and line-of-battle ships, with reduced complements, are ordinarily employed upon this service. They may be looked upon as the head-quarters of the coast guard district upon which they are stationed, and as drill ship for the

Home Station.

COAST GUARD SHIPS *continued.*

naval coast volunteers. Their crews are liable to frequent changes, those men who have been long on board being drafted into ships for foreign service, while their places are taken by men from ships recently paid off. Thus they may be said, in some respects, to partake of the character of newly-commissioned ships, from which comparatively large sick returns might be expected, while, on the other hand, the duties of the men do not expose them to the risk either of sickness or of the casualties incident to the ordinary service.

Of the thirteen vessels employed on coast guard service, it will be perceived that the rates of sickness in the following were above the average on the station:—

Majestic - - -	2200·	Royal George - -	1591·1
Donegal - - -	1897·	Irresistible - -	1232·2
Pembroke - -	1640·	Frederick William -	1216·1

The Majestic was stationed at Liverpool, and but only for a very short period. The prevailing complaints on board were catarrhs, syphilis, ulcer, with the usual proportion of trifling casualties. Her place at Liverpool was taken by the ship showing the next largest ratio of sickness,—

The Donegal, to which the crew of the Majestic were turned over, so that practically, as far as the ship's company is concerned, these two vessels represent one ship. The diseases in the Donegal were similar to those in the Majestic.

The Pembroke was stationed at Harwich. The most prevalent affections on board were of a trivial character.

The Royal George was stationed at Kingstown, in Ireland. Rheumatism appears to have been somewhat prevalent in her, but the majority of the cases placed on the sick list came under the heads of catarrh, diarrhœa, and casualties. Syphilis was not so prevalent as in some of the other vessels.

The Irresistible was stationed at Southampton. Venereal diseases assume a very prominent position in her returns; the most prevalent affections otherwise being catarrh, rheumatism, and boils.

In the Frederick William, the coast guard ship of the Weymouth district, stationed at Portland, the ratio of sickness did not much exceed the average, and she had little or no disease of a serious character.

Of

Home Station.

COAST GUARD SHIPS *continued.*

Of the remaining coast guard ships, all of which, as regards sickness, were under the average ratio, little need be said. The prevailing affections were similar to those in the different vessels which were in excess of the average ratio.

TRAINING SHIPS.

Of the six vessels employed on this duty, five were training-ships for boys, and one, the Britannia, for naval cadets. Only two of them exceeded the average ratio of sickness, the one showing the highest ratio being the Britannia.

In this vessel, stationed continuously at Dartmouth, the cadets and ship's company, with the exception of an epidemic of scarlet fever which prevailed amongst the former, may be said to have been healthy. The superior intelligence of those to whose training this vessel is devoted may, perhaps, induce them to apply more immediately to the medical officer in case of sickness than is found to be the case in the training vessels for ships' boys, and in this way a higher ratio of sickness is likely to be the rule in her returns, though they may present no disease of any importance.

In the other training vessels set apart for boys, skin diseases were by no means uncommon, and these, with boils ulcers, and trifling injuries, make up the sums of their sick lists.

STEAM VESSELS

These small vessels were very variously employed: the Dasher in the Channel, for the instruction of pilots and protection of the fisheries; the Lizard, as a tender to the flagship at Sheerness; the Medusa variously as her services were called for; the Salamis as a despatch vessel; and the Jackal, on the coast of Scotland, protecting the fisheries.

In three of these vessels the ratio of sickness exceeded in some degree the average, but in general it was of a comparatively trivial character.

In the vessels embraced under the heads of Yachts, Store-ships, or Training Brigs, there was nothing excessive or peculiar to call for comment. In some there was an excess over the average ratio, whilst in others, and notably in Her Majesty's yacht Victoria and Albert, the ratio was very much below it.

The mean ratio for all classes of vessels throughout the year, was 1004·2 per 1000, which is considerably below the average ratio of this station.

Home Station.

Invaliding.

The average ratio of invaliding in the Home Station for a period of six years was 29·2 per 1,000 of mean force. During the period embraced in the present return this ratio was exceeded by the following vessels:

IRON CLADS.

Achilles - - -	36·1	Hector - - -	42·
Enterprise - -	220·	Research - - -	32·

These were all newly commissioned vessels, into which continuous service men were drafted, either without being previously examined by the medical officers, or who, being examined and found unfit for active service, could only be got rid of in this way. The affections for which men are for the most part invalided are phthisis, rheumatism, epilepsy, functional derangement of the action of the heart, dyspepsia, syphilis, and hernia. In many cases these diseases are contracted on foreign stations, and developed during the period of leave a continuous service seaman enjoys between being paid off from one ship and joining another. The period also of fitting out a ship is one during which excesses of all kinds tend to develope disease, and it is thus that in the early part of a commission a general "weeding" of the ship's company is often necessary. In the Enterprise, which was only a short time on the Home Station during the past year, the "weeding out" process before proceeding on foreign service of course gives an exaggerated view of the ratio of invaliding in her; for eleven men taken from a complement which, corrected for time, is reduced to 50, is an enormous proportion.

RECEIVING SHIPS.

The ratio of invaliding in the receiving ships, such as the Duke of Wellington, St. Vincent, and Canopus, is high in consequence of their receiving on board large numbers of supernumerary continuous service men, paid off from sea-going ships, who are frequently found to be labouring under affections which unfit them for further active service.

ALL CLASSES.

The ratio of invaliding from all classes of vessels on the Home Station during the year was 27·3 per 1,000 of mean force, which is under the average ratio for six years.

Home Station.

Deaths.

The average ratio of mortality on the Home Station for a period of seven years, was 9·8 per 1,000 of mean force. In tabulating the ratio of mortality in different vessels the fluctuation will, of course, be very considerable, the complements being so various, and the numbers dealt with so small. It must be borne in mind, however, that a high ratio of mortality in a particular vessel does not necessarily indicate a correspondingly high ratio of sickness. The ratios of sickness and the ratios of mortality have, in fact, little or no relation to each other. The column therefore in Table III., giving the ratios of mortality in the different vessels, is only useful as showing the details from which the general result, or total ratio of mortality on the whole station is obtained.

See Appendix, Home Station.

The largest amount of mortality on the Home Station is caused by diseases of the organs of respiration,—inflammation of the lungs and pleura, and consumption, chiefly. The former class of affections are commonly of a very severe character when they attack men whose constitutions have been impaired by tropical service, or by excess. They are very often contracted during the winter months by men fitting out ships, the exposure to which they are necessarily subjected on such occasions being aggravated by the carelessness which seamen almost invariably display in all matters affecting their health. Fevers of a fatal character are occasionally contracted in the haunts to which the men resort when on leave.

The deaths from casualties of different kinds are numerous, and it will be perceived by the appended Table IV. that more than one-half the number were caused by drowning. Arrangements have been made for teaching the boys in the various training ships to swim, and for encouraging the seamen and marines to learn this most valuable art.

The ratio of mortality during the period embraced in the present return was 7·5 per 1,000 of mean force, which is less than the average ratio. Deducting casualties it was only 6·2.

MEDITERRANEAN STATION.

Mediterranean Station.

During the period embraced in the present return, there were 28 vessels of various kinds employed on the Mediterranean Station. With the exception of the Hibernia, which is the stationary receiving ship at Malta, and the Hydra and Firefly, which are surveying vessels, all the vessels were employed in the ordinary duties incident to men-of-war on the station on which they may be placed. The Weser and the Cockatrice, two small gun-vessels, were almost altogether stationed in the Danube; but there was nothing special in the particular duties which fell to the other vessels of the squadron calculated to affect the health of their ships' companies in any particular way.

The most formidable diseases to which the Mediterranean Squadron is exposed are, typhoid fever, which prevails in most of the large towns on the seaboard of the Mediterranean; remittent fever, on the coast of Syria chiefly; and an affection, probably allied to the latter type, and commonly known as Malta fever, which is liable to be contracted in any part of the Mediterranean, and is mainly of importance from its tendency to develope organic disease.

Catarrhal epidemics are not unfrequent, and, as a rule, phthisical subjects do not do well on this station. Diarrhœa is apt to prevail in the Midsummer and Michaelmas quarters, and dysentery occasionally makes its appearance.

Venereal diseases are almost unknown at Malta, where a strict system of surveillance is in operation; but ships' companies are liable to be seriously infected with this disease at Naples, Athens, and other places, where such a system either does not exist, or is very imperfectly carried out.

The mean ratio of cases of all diseases and injuries entered on the sick list on this station, for a period of seven years, was 1485·3 per 1,000 of mean force.

This

This ratio was exceeded by the following vessels:—

Mediterranean Station.

FIRST RATES.

Victoria - - - -	1725·9

This vessel was commissioned and appointed to take the place of the Marlborough, as flag-ship on the station, and nothing can better illustrate the difference in the ratio of sickness in a vessel that has been for some years in commission and one newly fitted out, than a comparison of the ratio in these two ships. Catarrhal affections, venereal diseases, rheumatism, boils, and casualties, caused the chief loss of service in the Victoria. The catarrhal affections abounded for the most part in January and February of 1865, when the weather was wet and changeable.

With regard to venereal diseases, the returns from the Victoria afford admirable testimony to the advantages derived from the system of rigid surveillance of prostitution in operation at Malta, as compared with the absolute indifference heretofore displayed in England with reference to the prevalence of this malady.

The Victoria was commissioned on the 1st of November 1864, at Portsmouth, and sailed on the 23d of the same month. The result of this brief sojourn at one of our principal home ports was thirty-six cases of syphilis and five of gonorrhœa, entailing a loss of service on board equal to 661 days; but sixteen of these cases were sent to hospital, where it is probable they remained for a very considerable time. In the following quarter, *i. e.*, in the Lady quarter of 1865, during which the vessel was in Malta harbour, there were only eleven cases of primary syphilis and one of gonorrhœa, all contracted in England, but concealed for different reasons by the men. There were also seven cases of secondary syphilis. Of these, the primary disease and the gonorrhœa caused a loss of service equal to 295 days, and the secondary affection a loss equal to 132 days. In the quarter following this, the ship still remaining in Malta harbour, the Surgeon says:—"The returns of this quarter exhibit strongly the great advantage of sound legislation, only one case of syphilis, and that exceedingly doubtful as to its origin, having presented itself. On the other hand, of the fourteen cases invalided, two-thirds suffered from chronic rheumatism and cachexia, traceable to syphilis contracted at the home ports."

The

Mediterranean Station.

FIRST RATES *continued.*

The rheumatic affections seem to have been induced by the variable and inclement weather which placed so many cases of catarrh on the list, though many of the former were tainted with syphilis.

The casualties with a very few exceptions were of a trivial character.

THIRD RATES.

Meeanee - - - -	1649·1

This ratio of cases is not much above the average. The Meeanee was chiefly at Malta and Athens, where febrile affections, catarrh, venereal diseases, rheumatism, and casualties of a more or less severe character, made up the sum of her sick-list. The febrile affections were for the most part of an ephemeral character, but some were severe, and were sent to hospital. Catarrhal affections were most frequent in the Lady quarter of 1865, and are attributable to the inclemency of the weather. A few were accompanied with some amount of febrile action and with bronchitis, resembling in fact influenza, but on the whole the cases were trifling.

Venereal diseases were almost altogether contracted at the Piræus of Athens, where it would appear there is no surveillance of prostitution, and the disease is rife. The list of casualties in this vessel is rather large, and some of them were severe. The great majority, however, were trivial.

FOURTH RATES.

Orlando - - -	1521·6	Liffey - - -	1508·7

These vessels so very slightly exceeded the average ratio that it does not appear necessary to comment at any length upon them. They are large frigates, and had been for some time in commission. The Orlando was stationed for the most part at Malta and in the Bay of Tunis, and her returns are chiefly of interest as showing the almost entire immunity she enjoyed from venereal diseases. In the Michaelmas quarter of 1864 there was only one case of syphilis. In the Christmas quarter there were five, and one of gonorrhœa. With regard to four of these cases the Surgeon says:—"General leave was given on November the 25th and 27th, and again on December 18th and 20th; three cases of syphilis and one of gonorrhœa were the result of the latter." In the Lady quarter of 1865 there were only two cases

cases of syphilis and three of gonorrhœa, and in the Midsummer quarter only one case of syphilis and none of gonorrhœa. The ship's company were by no means stinted as to leave, so that these returns may be looked upon as highly satisfactory.

Mediterranean Station.

FOURTH RATES *continued.*

An epidemic of influenza occurred in the Orlando in January 1865, which prevailed from the 22d of January to the end of the month, and during that short time upwards of sixty cases of febrile catarrh were added to the sick-list. Besides those placed on the sick-list a number of others suffered in a similar manner, but not to such an extent as to incapacitate them for duty. The symptoms did not last long, the average period of treatment being seven days. While lying at Tunis two severe cases of remittent fever occurred in this vessel, both of which proved fatal, one on board the ship and one at Malta Hospital. The case that proved fatal on board was in the person of a young officer, the immediate cause of the attack being "exposure to the sun and the marsh miasma of the lagoon situated between the Bay and the City of Tunis, and in which he had passed a day."

The Liffey was only for a portion of the period of this return on the Mediterranean Station, and during that time she was very healthy. The affections which prevailed in her chiefly were ephemeral fevers, catarrh, diarrhœa, and, during one quarter, syphilis. With reference to this disease the Surgeon says:—"The syphilitic cases have been more numerous during this than any quarter for the last two years. Of the seventeen cases returned, twelve are amongst the ship's company, and were all contracted at Athens; the remaining five were among supernumeraries, and in all contracted in England."

Enterprise - -	3272·7	Royal Oak - -	1501·6

IRON CLADS.

The Enterprise left England on the 25th of January, and arrived at Malta on the 8th of February. In referring to this vessel during the period she was employed on the Home Station, it was stated that the Surgeon had reported the ventilation to be very good, and the cubic space on the lower deck to be ample for the complement. It would appear, however, that this space was not fully taken advantage of, and

Mediterranean Station.

IRON CLADS *continued.*

and that the men were consequently a good deal crowded together, which may have contributed in a small degree to increase the ratio of sickness. The Surgeon, moreover, believes that the daily wetting of all parts of the ship exerted a deleterious influence on the general health; but more care was afterwards displayed in this matter, so that it is hoped in time the vessel will more approximate to the average ratio.

During the time she was in the Mediterranean the principal affections prevailing on board were boils. While lying in Malta harbour, being anchored in French Creek, and not far from the mouths of several sewers, cases of fever of a low type began to prevail. They made their appearance within eight days of the vessel taking up her anchorage, and although she was at once removed to Sleima Creek, in the Quarantine Harbour, cases continued to recur for the following six weeks.

The Royal Oak was commissioned in April 1863, and to the date of the commencement of this return had been decidedly an unhealthy ship. The sick-list had always been high, the affections most prevalent being fever of greater or less severity, affections of the respiratory organs, rheumatism, and boils. This high sick-rate was attributed by the Surgeon chiefly to the defective ventilation of the ship, for in other respects she was in a most favourable condition for health. In remarking on the state of the sick-list during the year 1864, he says :—" It is, in round numbers, as if every man in the ship had been twice on the sick-list in the course of the year for more than ten days at a time, while the 123 cases sent to hospital, being far more protracted, would largely increase the amount."

In September 1864 an inquiry into the sanitary condition of the vessel was ordered by the commander-in-chief, which resulted in a report, that the principal defects were a deficiency of light and fresh air on the lower deck, on which the men were berthed. The presence of the sick-bay in the lower deck was also strongly objected to, not only as disadvantageous to the sick, but on account of its bulkhead obstructing and interfering with the circulation of air on the lower deck. The effect of the report was that a top-gallant forecastle was constructed, and a roomy sick-bay fitted underneath it. The sick-berth below was thrown into the lower deck space. Eight scuttles were cut into the lower deck

deck proper, and the cabins and mess places were also fitted with them; ventilating tubes leading from the breadroom and cockpit, and from each side of the lower deck, into the hollow masts, were added to those previously in use, and a large ventilating tube with cowls was fitted, leading from the forecastle to the lower deck: all these were great improvements, and there can be little doubt that they exerted a beneficial influence in the health of the men. In the report for the Midsummer quarter of 1865, nearly six months after the completion of these alterations, the Surgeon reports: "This return still shows a continued improvement upon the health of the men, there being, in all, twelve cases less than in the previous quarter: as compared with the same period last year the improvement is very great, there having been 252 cases added to the list then, against 175 now." The condition of the Royal Oak bears a close analogy to that of the Prince Consort, as noticed in the report on that vessel on the Home Station.

Mediterranean Station.

IRON CLADS *continued.*

Cossack - - - -	3032·7

SIXTH RATES.

This vessel was commissioned in May 1863, and appears always to have been an unhealthy ship. The only observation made by the Surgeon which has any bearing on the high sick-rate on board, is to the effect that the berthing accommodation for the ship's company was quite inadequate to the complement. The affections, however, were for the most part of a trivial character, the disease which figures most on the sick-list being diarrhœa. During the Michaelmas quarter of 1864 the vessel was stationed on the coast of Syria, where she remained during one-half of the Christmas quarter also: after that she was employed at Malta, Tripoli, the Ionian Islands, and on the coast of Greece, returning to the coast of Syria in June 1865. At Alexandria, where she was in the month of June, cholera had made its appearance, and two of the ship's company who had been on shore contracted the disease; it did not prove fatal in either case, and the vessel having stood out to sea, the disease did not spread amongst the ship's company.

Boils and ulcers seem to have been very prevalent also. In the Michaelmas quarter of 1864 there were no fewer than 94 cases

Mediterranean Station.

94 cases of the former painful affection placed upon the sick-list. Rheumatism also was a frequent affection.

SLOOPS.

Pelican - - -	1533·3	Trident - - -	1709·

Considering the localities on which the Pelican was stationed throughout the year,—viz., the Bay of Tunis, the Ionian Islands, and the coast of Syria—she may be looked upon as a healthy vessel. During the Michaelmas quarter of 1864, when she was chiefly in the Bay of Tunis, the excessive heat had a very depressing effect upon the ship's company, which was increased by the frequent occurrence of sirocco winds. At this time boils were very common on board, and trifling wounds were slow to heal. In some the vital depression was so great, that ulcers otherwise trifling in nature took on a sloughing action. During the whole of this quarter the weather was unusually hot, the thermometer for many days at a time standing as high as 84° in the shade, and on some occasions a hot wind blew off the land, which raised the thermometer as high as 102° or 103° for two or three days at a time. Diarrhœa was common at this time also, and this affection with catarrh, and, as has been said above, boils made up the sick list on board. From the 1st of July 1864 to the 30th of July 1865, only one case of syphilis was placed on the sick list in this ship.

The Trident was paid off on the 20th of December 1864, so that the returns from this vessel are only for about six months. The affections which were most prevalent in her were of an exceedingly trivial character, chiefly boils and minor injuries. She had not a single case of syphilis on the sick list during the six months for which these returns are rendered, nor indeed had she a case during the whole of the year 1864.

GUN VESSELS.

Wanderer - - - -	1490·

The excess over the average ratio is so very small in this vessel as hardly to be worthy of notice; boils constituted the largest proportion of her sickness. Only two cases of syphilis were contracted throughout the year, both of them at Athens. During the Christmas quarter of 1864, and in the Lady-day

Lady-day quarter of 1865 there were a good many cases of diarrhœa and catarrh, but upon the whole this vessel was very healthy.

Mediterranean Station.

STEAM VESSELS.

Psyche - - - -	1969·2

This is a small despatch vessel, with a complement of about sixty-five officers and men. A few cases of ephemeral fever in the Michaelmas quarter of 1864, and some cases of diarrhœa in the Christmas quarter of the same year, caused the ratio shown above. Upon the whole the ship was an exceedingly healthy one.

GUN BOATS.

Cockatrice - - - -	1800·

This small vessel, with a complement averaging about thirty-five officers and men, was almost altogether stationed in the River Danube and at Constantinople. Her men suffered from periodic fevers, occasioned by the malarial influences abounding in the neighbourhood of Galatz and Braila, on the Danube. There were no other affections, in fact, in the vessel of any importance.

Invaliding.

The rate of invaliding on the Mediterranean Station, taken for a period of seven years, averaged 40·1 per 1,000 of mean force. It may appear singular that affections of the lungs, chiefly consumption, should constitute the largest proportion of those rendered unserviceable on this command; but there can be little doubt that the deteriorating influence of the Mediterranean climate is liable to light up active pulmonary disease in those constitutionally predisposed to it. Next in order to pulmonary diseases stands rheumatism, which may perhaps be referred to the same cause, which in other cases induces organic diseases of the lungs. In fact, the peculiar cachexia, which service on this station sometimes engenders, is very apt to develope various forms of organic disease.

Mediterranean Station.

It will be perceived by Table II.* that the following vessels exceeded the average ratio invalided.

* Appendix, Mediterranean Station.

Victoria - - - -	59·8

FIRST RATES.

The disease which occasioned the largest amount of invaliding in the above vessel was rheumatism; next came pulmonary diseases, and the third in the scale was syphilis. Probably many of the rheumatic cases had a syphilitic origin.

SECOND RATES.

Gibraltar - - - -	45·3

Rheumatism, syphilis, lung diseases, and epilepsy constituted by far the largest proportion of the diseases for which men were invalided in this ship. Two or three men were invalided for the sequelæ of fever, and six for various affections of the heart and blood-vessels.

THIRD RATES.

Meeanee - - - -	70·4

Forty-three men were invalided from this vessel during the period of this report. A very large proportion of these were for diseases of the lungs, a few for the sequelæ of fever, a considerable number (eight) for affections of the heart and blood-vessels, a few for rheumatism, and a few for ulcers.

IRON CLADS.

Enterprise - -	272·7	Resistance - -	43·9
Royal Oak - -	85·		

Fifteen men out of a complement corrected for time of only fifty-five, were invalided during the short time the Enterprise was on this station. Of these two were labouring under diseases of the nervous system, one under an affection of the heart, four under pulmonary diseases, two were invalided for ulcer, two for the results of accidents, three for affections of the special senses, and one for dyspepsia. The remarks that were made with respect to the invaliding in this vessel when on the Home Station, probably apply in a large measure to the continuance of the invaliding in the Mediterranean.

Rheumatic

Rheumatic and pulmonary affections caused the greatest loss by invaliding in the Royal Oak. Mediterranean Station.

The ratio of invaliding in the Resistance is very little indeed above the average ratio. The sequelæ of fever and rheumatism were the chief affections.

SLOOPS.

Racer - - - -	57·1

Eight men were invalided from this vessel, of whom three laboured under affections of the circulatory organs, two were afflicted with rheumatism, one was insane, one was subject to night-blindness, and one laboured under disease of the knee-joint.

ALL CLASSES.

None of the other vessels on the station exceeded the average ratio. The mean ratio for the whole force during the period was 38·7 per 1,000, which is lower than the average ratio.

Deaths.

The average ratio of mortality on the Mediterranean Station during a period of seven years, was 10·8 per 1,000 of mean force. During the period of the present return it was only 8·3, nearly one-half of which was from casualties, so that the mortality from disease alone was very small. Rather more than one-fourth of the mortality indicated in the average ratio for seven years arose from casualties.

The mortality in the five following vessels exceeded that of the average ratio for several years :—

FIRST RATES.

Marlborough - - -	11·9

Of the five deaths which occurred in connection with this vessel, two were caused by typhoid fever, one was the result of an apoplectic seizure, one died in hospital from paralysis, and one man was killed by a fall from aloft.

FOURTH RATES.

Orlando - - - -	36·6

Two-thirds of the mortality in this ship arose from casualties. Eleven officers and men were drowned by the upsetting

Mediterranean Station.

of a boat. Of the deaths resulting from disease, two were from fever, one from disease of the lungs, one from epilepsy, one from disease of the heart, one from delirium tremens, and one from pyœmia.

SLOOPS.

Trident - - - -	36·3

Two deaths occurred in this vessel, one from disturbance of the nervous system, following an injury, the other from consumption.

STEAM VESSELS.

Psyche - - - -	15·3

One death occurred in this vessel from disease of the heart.

NORTH AMERICA AND WEST INDIES.

North American and West Indian Station.

The squadron on the North American and West Indian command during the period of the return consisted of twenty-nine vessels, with a force corrected for time of about 6,100 men; of the vessels one was a second-rate, four were frigates of the fourth rate, five frigates of the sixth rate, twelve belonged to the sloop class, and there were five gun vessels, a stationary receiving ship at Jamaica, and a stationary floating battery at Bermuda.

The diseases incidental to ships' companies on this station are fevers, chiefly of a remittent type, but yellow fever is unquestionably the scourge of the station. Fortunately clearer views are beginning to be held with regard to its mode of propagation, and the ascertained fact that it cannot exist in a cold temperature has justified, or rather necessitates the rule that all officers in command of ships in which the disease may present itself, should at once make for northern latitudes; it still, however, seems not to be sufficiently well understood that yellow fever may be altogether escaped, simply by avoiding the localities in which it is known to be prevailing, and that localities still exempt from the disease may be insured an immunity from it by the enforcement of stringent quarantine laws. Within the period embraced in this Report the island of Bermuda has been visited by an epidemic of this fatal scourge, which was unquestionably imported into the island by blockade runners from Nassau, where the disease was prevailing. Had quarantine been as rigidly enforced at Bermuda in 1864, as it was at New Orleans by the federal authorities in 1862, when yellow fever was prevailing as an epidemic within a short distance of the mouths of the river upon the banks of which that city stands, there can be little doubt that the island would have escaped the disastrous visitation which it sustained.

North American and West Indian Station.

Of other affections prevalent on this station, boils and ulcers cause by far the greatest loss of service. Catarrhal affections not unfrequently occur in an epidemic form, and diarrhœa is very common.

The ratio of cases of all diseases and injuries placed on the sick list, taken for a period of seven years subsequent to 1855, gives an average of 1668·5 per 1,000 of mean force. During the period of this return this ratio was exceeded by the following vessels, viz.:

FOURTH RATES.

Phaeton - - - -	1697·

The excess in this ship is so very small as scarcely to be worthy of mention; during the Michaelmas quarter of 1864, while she lay at Fortress Monroe, in Virginia, the ship's company suffered much from the heat, ephemeral fever, and diarrhœa.

SIXTH RATES.

Pylades - -	1856·6	Cadmus - -	3757·1

The Pylades was stationed a good deal at Barbadoes, where her men suffered from remittent and ephemeral fevers following leave, and very much from syphilis, which it would appear is prevalent to a considerable extent in that island. Boils were common, as a result of the great heat, and they unfortunately often terminated in obstinate ulcers. Casualties were rather frequent, and in the Midsummer quarter of 1865 the accidental explosion of a charge of gunpowder, in the breech of an Armstrong gun, severely injured five men, two of whom completely lost their eyesight in consequence.

The Cadmus was a newly-commissioned ship, and only arrived on the station in March 1865. By far the largest amount of sickness was occasioned by venereal diseases, contracted at the home ports of Chatham, Sheerness, and Plymouth. After the arrival of the ship on the station boils became very frequent, and in many cases exceedingly intractable. A few cases of fever occurred, but they were mild and easily amenable to treatment. Diarrhœa of a simple uncomplicated character was frequent in the Mid-

summer

summer quarter of 1865, and cases of catarrh of a mild character prevailed in the early part of the year.

North American and West Indian Station.

SLOOPS.

Bulldog - - -	2100·	Rinaldo - -	1990·9
Styx - - -	1762·1	Greyhound - -	2400·
Fawn - - -	1822·8	Cordelia - -	1860·8
Rosario - - -	2184·6		

The Bulldog was a tolerably healthy ship; she only arrived on the station in September 1864, and a great deal of the sickness in her was occasioned by venereal diseases contracted in England. She was stationed principally at Sacrificios, in the Gulf of Mexico, and while there, three cases of yellow fever occurred amongst her ship's company, the disease being distinctly traceable to communication with the shore, where it was prevailing. Eight cases subsequently occurred on board, and of these three proved fatal. One in the person of the nurse who attended upon the first man infected, who also died; and the third in a man, who had communication with the latter.

Febrile diseases of a more or less severe character prevailed during the Christmas quarter of 1864, and the Lady and Midsummer quarters of 1865.

The Styx was by no means an unhealthy vessel. Her sick rate was for the most part occasioned by trivial affections. In the Michaelmas quarter of 1864 there was a good deal of diarrhœa of a mild character, and in the Midsummer quarter of 1865 there were a few cases of remittent fever, and ten of ephemeral fever under treatment. The vessel was stationed during the whole of that quarter off Fortress Monroe, in Virginia. During some portion of the time embraced in this return, when the Styx was stationed at Barbadoes, boils were frequent and venereal diseases began to prevail.

The Fawn was only commissioned in June 1864, and did not reach her station until the month of October. Considering that she was a newly-commissioned ship she cannot be looked upon as unhealthy. Venereal diseases, contracted in England; diarrhœa in the month of May, during hot moist weather, when, although only eighteen cases were placed on the sick list, nearly two-thirds of the ship's company were affected; rheumatism, catarrhs, and boils compose the sum of her sick list.

North American and West Indian Station.

SLOOPS *continued.*

The Rosario was at different times stationed at Bermuda, Jamaica, and Vera Cruz. The affections which prevailed most in her were fevers of varying severity, diarrhœa, and boils. Although the ship's company had a good deal of leave at Jamaica, while the vessel was refitting, venereal diseases were not by any means frequent, and the surgeon remarks, that few of those complaints resulted " which originate and may be expected from excesses committed on shore." Ague seems to have been rather common in the Rosario, and is attributed by the surgeon to exposure to malaria during the time she was moored off Fortress Monroe.

The Rinaldo was stationed principally in the Gulf of Mexico, at Sacrificios, Matamoras, and off the Rio Grande. She left the station on the 8th of December 1864, and arrived at Spithead on the 28th of January following. Considering the long time she was in the Gulf of Mexico she suffered less from boils than the majority of vessels so situated. Diarrhœa was prevalent in the Christmas quarter of 1864, and some mild cases of fever occurred in the Michaelmas quarter, but as the vessel approached England in the Lady-day quarter of 1865, catarrhs became frequent, as might have been anticipated. Upon the whole the Rinaldo was a healthy vessel, and the excess she shows over the average ratio of sickness may be attributable to the deteriorating influences of the climate of the station upon men who had been long upon it.

Of the vessels of the sloop class, the Greyhound returns by far the largest ratio of sickness, but this is to be ascribed to her having been only a very short time in commission; having been paid off in November 1864, her complement, corrected for time, is in consequence proportionally small. This of course gives a somewhat exaggerated importance to the occurrence of a few cases of disease. As it was, the affections which prevailed in the Greyhound were of comparatively small importance. She was chiefly stationed among the Windward Islands, and, while there, diarrhœa and ephemeral fevers were not uncommon, and there were a good many trifling wounds and injuries. There was a slight tendency to scurvy among the ship's company on the homeward passage, owing, the surgeon thought, to the lengthened cruizes of the ship while employed among the Windward Islands.

The Cordelia was only commissioned in June 1864, so that for a newly commissioned vessel the increase she shows

shows over the average is by no means large. The only affection of any importance which prevailed amongst the ship's company was a form of fever of the continued type, which with diarrhœa made its appearance in the Midsummer quarter of 1865, when the vessel was cruizing off the coast of Central America.

North American and West Indian Station.

SLOOPS *continued.*

GUN VESSELS.

Lily - - -	2505·2	Plover - - -	1960·
Cygnet - - -	2025·	Nimble - - -	2800·
Steady - - -	1733·3		

In all the vessels of this class there was a decided increase over the average ratio.

The Lily was employed for some time cruizing on the fishery stations at Newfoundland, and there catarrhal affections were most prevalent on board. During the latter part of the Christmas quarter of 1864, and the early part of the Lady quarter of 1865, she was on the coast of Cuba, where she seems to have had a good many cases of ague.

The Cygnet, a small vessel with an average complement of about eighty men, was paid off at Halifax and re-commissioned. Her returns, therefore, scarcely afford information of much importance. During the short period of the old commission in which she appears in this Report, ephemeral fever was somewhat frequent whilst cruizing on the coast of Cuba, and boils became prevalent consequent on a slight scorbutic taint in the ship's company. During the earlier part of the new commission, trifling casualties predominate in her returns, while in the Midsummer quarter of 1865, fevers of a remittent type, syphilis, and boils were most common. The vessel was at this time employed at Port Royal, Jamaica, Port au Prince (Hayti), and at Nassau.

The ratio of cases in the Steady is very little above the average. With the exception of a few cases of remittent fever in the Lady quarter of 1865, the result of service on the River Orinoco, there was nothing connected with the sanitary condition of this vessel worthy of mention.

The Plover was employed for the most part cruizing off the coast of Cuba, and was frequently lying in the harbour of Havana. There was nothing of a special character in the

North American and West Indian Station.

GUN VESSELS *continued.*

the nature of the affections which prevailed amongst her ship's company.

The returns from the Nimble are incomplete, and the ratio given is, therefore, only for such returns as have been sent into office; these only date from the end of November 1864. This vessel was employed, like almost all the others of her class, in cruizing, and she was at various times stationed at Port Royal and at Sacrificios. A few cases of fever made their appearance at Port Royal, but they were of a mild type.

Invaliding.

The average ratio of invaliding, taken for a period of seven years, was 29·1 per 1,000 of mean force. There is a decrease during the period embraced in the present Report, the invaliding being only 25· per 1,000. There was an increase over the average ratio in the following vessels:—

SIXTH RATES.

Pylades - -	37·7	Cadmus - -	57·1

With the exception of two men of the Pylades, and one of the Cadmus, invalided for bowel affections, and a man of the Cadmus for the sequelæ of fever, the diseases for which the other men were invalided from these vessels had no necessary connection with the station, being chiefly diseases of the lungs of a constitutional character, and hernia.

SLOOPS.

Bulldog - - -	76·4	Fawn - - -	51·4
Rosario - - -	69·2	Greyhound - -	50·
Cordelia - - -	52·1	Peterel - - -	32·

Thirteen men were invalided from the Bulldog, namely, two for diseases of the nervous system; three for affections of the heart, three for diseases of the lungs, the others were syphilitic and rheumatic cases.

In the Rosario, of nine men invalided three were labouring under rheumatism, the others under various affections of the vital organs, and syphilis.

Of six men invalided from the Cordelia, two were epileptics, two laboured under lung disease, and two under rheumatism.

In

In the Fawn the diseases for which men were invalided were mostly pulmonary, and ulcers. In the Greyhound, one man was invalided for syphilis, one for the result of a casualty, and one for disease of the knee joint. In the Peterel four men were invalided, one for the sequelæ of fever, one for an affection of the heart, one for ulcer, and one for liver complaint.

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GUN VESSELS.

Lily - - -	31·9	Steady - - -	66·6
Cygnet - - -	50·	Nimble - - -	100·

The affections for which men were invalided from these small vessels were chiefly the sequelæ of fever, affections of the lungs, and of the bowels.

RECEIVING SHIP.

Aboukir - - - -	33·3

Seven men were invalided from this vessel, of whom two were for the sequelæ of fever, one for disease of the nervous system, two for pulmonary disease, one for rheumatism, and one for a casualty.

Deaths.

The frequent epidemics of yellow fever that have occurred upon this station, and the fatal nature of that disease, have given it a very high ratio of mortality. Taken for a period of seven years, it amounts to 25·9 per 1,000 of mean force.

It will be perceived by Table III, in the Appendix,* that during the period for which the present Report is drawn up, that ratio has only been exceeded in two vessels; and in one of these, the floating battery Terror, it was consequent altogether upon the epidemic of yellow fever with which Bermuda was recently visited, and which cut off many men who were borne on the books of that vessel for dockyard duty. But for this outbreak the ratio of mortality on the station for the period of the present Report would have been exceedingly small; as it is, it is very much under the average ratio.

* North American and West Indian Station.

The

North American and West Indian Station.

The vessels that exceeded the average ratio were, as has been said, only two in number, viz., the Rinaldo and the Terror.

SLOOPS.

Rinaldo - - - -	27·2

This vessel was only for a few months on the station, and her complement consequently, corrected for time, is small. This, of course, exaggerates the value of a death or two occurring during the period. There were, in point of fact, only three deaths in the Rinaldo during this time, one of these being caused by apoplexy occurring in a man who was fighting in a brawl, one by disease of the heart, and the third by fracture of the skull, the result of a fall from aloft.

FLOATING BATTERY.

Terror - - - -	156·8

There were forty deaths altogether among the men borne on the ship's books. Of these thirty-six died of yellow fever, two of dysentery, one of phthisis, and one man was found drowned in shallow water, having, when last seen alive, been intoxicated.

SOUTH EAST COAST OF AMERICA STATION.

South East Coast of America Station.

The squadron on this station consisted of eleven vessels, of these one was a third rate, one a sixth rate; there were three sloops, two small vessels classed as steam vessels, three gunboats, and a receiving ship stationary at Rio Janeiro.

The diseases most common on the Brazilian Station are fever and bowel complaints; the former are of various types, the majority, however, being of a periodic character. Typhoid fever appears to be endemic in the River Plate, and various parts of the station have been visited with severe epidemics of yellow fever; it has, however, been free from that scourge for some years now, and will remain so until it receives a fresh importation of the disease from some infected locality.

The average ratio of cases of disease and injury entered on the sick list, taken for a period of seven consecutive years (1856 to 1862 inclusive), was 1718·4 per 1,000 of mean force; during the twelve months for which this Report is made out, this ratio is exceeded by the following vessels:

SLOOPS.

Stromboli - -	2080·	Alecto - - -	2557·1
Curlew - - -	3225·		

The excess of sick-rate in the Stromboli is almost entirely attributable to an epidemic of influenza in the Michaelmas quarter of 1864, when the vessel was in the harbour of Rio de Janeiro; the disease was of a mild character.

The Curlew was almost altogether employed on the northern part of the station, at Rio Janeiro, Bahia, Pernambuco, Parahyba and Maranham. Although her sick-rate is very much in excess of the average, there was no disease amongst her ship's company of any urgency; common colds and diarrhœa were the most prevalent affections.

The same remarks apply to the Alecto.

South East Coast of America Station.

Doterel - - - -	2266·6

GUN BOATS.

This small vessel was employed during the whole twelve months in the River Plate, or her tributary rivers the Uruguay and Parana. The trifling ailments which make up the sum of her sick list do not call for any comment.

RECEIVING SHIP.

Egmont - - - -	2200·

Colds, diarrhœa, and rheumatism were the most common complaints in this vessel. Being the receiving ship for supernumeraries on the station, the number of men on her books varies a good deal, and her sick rate is likely to be increased by the fact that they are for the most part fresh arrivals from England, and consequently unacclimatised, while at the same time they confer upon the vessel somewhat of the character of a newly commissioned ship.

Very little requires to be said of the affections most prevalent in those vessels in which the sick rate was below the average ratio. The station is a very healthy one, and the sick lists of the ships employed on it are, as a rule, composed of very trifling ailments.

ALL CLASSES.

The mean ratio of cases of disease and injury placed on the sick lists of the different ships was 1873· per 1,000 of mean force, which is in excess of the average ratio.

Invaliding.

The average ratio of invaliding for the seven years noted above was 33·4 per 1,000. This was exceeded during the present period by three vessels.

STEAM VESSELS.

Sharpshooter - - -	85·7

The returns from this vessel are imperfect, owing to the death of the medical officer, and the complement corrected for time is in consequence so small that an exaggerated value is given to all the details in connection with her. Only three men were invalided during the period for which returns have been received, Of these two laboured under disease of the lungs, and one had a liver complaint.

Spider - - - -	100·

South East Coast of America Station.

Only one man was invalided from this vessel, the disease under which he laboured being syphilis.

GUN BOATS.

Egmont - - - -	85·7

RECEIVING SHIP.

Six men were invalided from this vessel, of whom two laboured under general debility, two were invalided for diseases of the nervous system, one was the subject of aggravated venereal disease, and one man was almost blind.

ALL CLASSES.

More men were invalided for diseases of the lungs and of intestinal canal than for any other complaints. After these, in point of numbers, came syphilitic diseases and diseases of the nervous system. The total ratio of invaliding from all classes of vessels was 26·9 per 1,000, which is considerably below the average ratio.

Deaths.

The average ratio of mortality on this station, for the seven years, was 18·7 per 1,000 of mean force. The unfortunate loss of the Bombay by fire, and the consequent deaths by drowning of ninety-one of her officers and men, raise the ratio during the period of this return to 103·8 per 1,000; deducting those men, the ratio would be under the average, viz., 16·3; and two-thirds of this ratio arises from casualties. The vessels which exceeded the average ratio at this time were the following :—

THIRD RATE.

Bombay - - - -	408·6

This ratio was altogether occasioned by casualties. The vessel was totally destroyed by fire, in the River Plate, and so rapid was the progress of the flames that in the attempt to escape ninety men and one officer were drowned.

STEAM VESSELS.

Sharpshooter - -	28·5	Triton - - -	22·2

The same observations apply to the rate of mortality in the Sharpshooter as were made with reference to her sick-rate.

South East Coast of America Station.

rate. There was only one death in the vessel; and the death-rate in the Triton was altogether derived from casualties.

GUN BOATS.

Doterel - - - -	33·3

There was no death from disease in this vessel.

RECEIVING SHIP.

Egmont - - - -	57·1

Of four deaths that took place in this ship three were occasioned by the capsizing of a shore boat, and one by disease.

ALL CLASSES.

There were only six deaths from disease in the squadron. Of these two appear to have been caused by typhoid fever, one by inflammation of the bowels, one by bronchitis, one by pyœmia, and one by inflammation of the brain. The death-rate from disease was only 5·7 per 1,000 of mean force.

PACIFIC STATION.

Pacific Station.

THERE were twelve vessels on this station, of which two were frigates of the fourth rate, one was a fifth rate; there were two sixth rates, five vessels of the sloop class, and two store ships, one of which was stationary at Valparaiso, and the other at Callao.

The diseases most prevalent on this station are fevers of an intermittent or remittent type, and rheumatism The fevers occur most frequently in vessels employed on the Coast of Mexico, or of Central America. Rheumatism is common to the whole station.

The average ratio of sickness for seven consecutive years was 1,523· per 1,000 of mean force; this ratio was exceeded during the period embraced in this report by the following vessels:

SIXTH RATES.

Charybdis - -	2351·2	Clio - - -	1950·

The crew of the Charybdis suffered a good deal from fever, colds, and diarrhœa while stationed on the coast of Central America in the Michaelmas quarter of 1864, the cases however, were not severe; subsequently, while at Vancouver's Island, and on the passage to England, rheumatism was rather prevalent.

The Clio only arrived on the station in December, so that her complement for time is reduced to one-half. Her sick rate does not greatly exceed the average ratio, and the diseases under treatment were not of a severe character. The crew seem to have suffered much from syphilis while in England, and cases of this disease continued until the Lady quarter of 1865. In the Midsummer quarter, however, of that year, there were no fresh cases of this disease, and the Surgeon states that the benefits of a rigid surveillance of

Pacific Station.

prostitution were fully experienced during a twenty-seven days' stay at Honolulu. He states that this surveillance when they arrived, had been in existence for a year or two, and that so rife was the disease previous to its enactment, that shortly before that a Russian man-of-war left with seventy cases of syphilis on board; during the period of the Clio's stay at Honolulu, the ship's company were freely given leave, and the only evil consequences that resulted from it was one mild case of gonorrhœa.

SLOOPS.

Columbine - -	1833·3	Shearwater - -	1600·
Devastation - -	3683·3	Cameleon - -	1546·6

The Columbine was almost throughout the whole twelve-month stationed on the coasts of Mexico and Central America. Her crew appear to have enjoyed very fair health, the cases ordinarily on the sick list being of a mild charater. Febrile affections, diarrhœa, and rheumatism were not uncommon, the former being ephemeral in their nature. The greatest loss of service was from boils.

The sick rate in the Devastation is very high. This vessel was much employed on the coast of Mexico, where the men were sometimes sent away in boats and absent from the ships for a week or ten days at a time. To the nature of the duties on which she was employed, and the exposure to which the men were subjected, the surgeon attributes much of the sickness that prevailed on board. Venereal diseases became frequent amongst the ship's company after communication with Mazatlan, in which place they became rife subsequent to its occupation by French troops.

The ratio of sickness in the Shearwater does not much exceed the average. This vessel was mostly employed on the coast of South America. The largest number of cases under treatment was common colds; the ship's company also suffered from venereal disease contracted at Valparaiso.

The Cameleon very slightly exceeded the average ratio. During the first six months of the period embraced in this return she was on the coast of Mexico, and while there febrile diseases of greater or less urgency prevailed. As a rule however, they were not of much importance. After leaving the

the coast of Mexico the vessel was stationed at Vancouver's Island, where the men enjoyed excellent health. Pacific Station.

STORE SHIPS.

Nereus - - - -	1533·3

This vessel was stationed at Valparaiso, and the slight increase in her sick rate over the average ratio is entirely attributable to venereal disease, of which Valparaiso would appear to be the hot-bed on this station.

The total sick-rate of all classes of vessels was 1575·1, which slightly exceeds the average ratio of the station. Upon the whole, however, the squadron on the Pacific during this period was very healthy. ALL CLASSES.

Invaliding.

Rheumatism and diseases of the lungs are the most prolific sources of invaliding on this station. The average ratio of invaliding for all diseases for the seven consecutive years was 31·1 per 1,000 of mean force. This ratio is largely exceeded during the present period, which, indeed in this respect surpasses any one of the seven years from which the average ratio has been taken. The following are the vessels in which the loss of service by invaliding was in excess of the average ratio.

SIXTH RATE.

Clio - - - - - -	100·

Fourteen men were invalided from this vessel. The majority of these were for affections which had no necessary connection with the service, being of a constitutional character. Three men, however, were invalided for rupture, and one for a sprain.

SLOOPS.

Alert - - -	54·5	Shearwater - -	72·7
Columbine - -	108·3	Cameleon - -	73·3
Devastation - -	108·3		

In all the vessels of this class the rate of invaliding exceeded very much the average ratio.

Pacific Station.

Nine men were invalided from the Alert. Of these two were [illegible] the heart, one for pulmonary disease, one for [illegible] sequelæ of fever, one for the result of a casualty, one for [illegible] ulcer, one for obscure disease of the testicle, one for a cachectic condition of the system, induced by his trade, which was that of a painter; and one for hernia.

There were thirteen men invalided from the Columbine, five of whom were for functional or organic disease of the heart, four for rheumatism, one for disease of the lungs, one for disease of the bones, and two for affections of the special senses.

In the Devastation, also, thirteen men were invalided. Of these four were for rheumatism, three for the sequelæ of fever, two for diseases of the brain and nervous system, one for climatic cachexia, one for loss of voice, one for liver disease, and one for the results of an accident.

Of eight men invalided from the Shearwater, three were for disease of the lungs, three for rheumatism, one for heart disease, and one for syphilis.

Eleven men were invalided from the Cameleon. Of these two were for consumption, three for disease of the heart and blood vessels, one for inflammation of the stomach, two for rheumatism, one for tropical cachexia, one for the result of a casualty, and one for hernia.

STORE SHIPS.

Nereus - - - - - -	66·6

The complement of this vessel was so small that the invaliding of two men gave her an increase over the ratio. Of the two men invalided one suffered from rheumatism, and one from climatic cachexia.

Deaths.

The average rate of mortality on the Pacific Station, for the seven consecutive years, was 9·5 per 1,000 of mean force. One-third of this may be deducted for casualties, which will make the average death-rate from disease about 6· per 1,000.

The total average ratio was only exceeded by three vessels.

Pacific Station.

Leander - - - -	14·

FOURTH RATE.

There were seven deaths altogether in this vessel, two of them being the result of casualties. Of the five deaths from disease two were caused by typhus fever, contracted at Callao; one by consumption, one by inflammation of the lungs following fever, and one by disease of the kidneys.

Charybdis - - - -	14·6

SIXTH RATE.

This death rate was altogether caused by casualties, the only three deaths in the ship being from drowning.

Shearwater - - - -	18·1

SLOOPS.

There were two deaths in this vessel, one from typhus fever, and one from an inflammatory affection of the lungs.

ALL CLASSES.

There were nineteen deaths altogether on the Station, twelve being from disease and seven from casualties, the former being in the ratio of 5·1 and the latter of 3· per 1,000 of mean force. The total death rate for the period was 8·1 per 1,000, which is considerably under the average ratio.

WEST COAST OF AFRICA STATION.

West Coast of Africa Station.

THERE were twenty-two vessels employed on this station during the period embraced in the present Report. Of these two were sixth rates, twelve are classed as gun vessels, two as steam vessels. One was a sloop; there were two store ships, one gun boat, and two receiving ships. The mean force corrected for time was 1,620 men.

The physical character of the West Coast of Africa, and the peculiar nature of the duties of the squadron employed upon it, combine to render this one of the most unhealthy stations on which our ships are employed. Malarial fevers are pre-eminently the diseases to which ships' companies are exposed, and the causes which operate in their production doubtless exert a powerful influence in exciting, if they do not altogether account for many of the other prevailing affections. These malarial influences, however, being, perhaps exclusively, of terrestrial origin, and not being capable of extension to any great distance to seaward, the sick rate on the station is naturally much, if not altogether influenced by the special duties of the individual ships of the squadron; those which are kept constantly at sea enjoying a fair measure of health, while river service almost always entails a large amount of sickness. Yellow fever is occasionally epidemic in different localities on the coast, and rheumatism and bowel affections are very common.

The average sick rate for the seven consecutive years adopted in this report was 1928·9 per 1,000 of mean force. This was exceeded during the present period by the following vessels:

SIXTH RATE.

Archer - - - -	3024·2

The ship's company of this vessel suffered a great deal from fevers of a remittent type. At the commencement of the

West Coast of Africa Station

SIXTH RATE *continued.*

the period embraced in this return the crew appear to have been in an impaired state of health. The surgeon states that although most of the ship's company were young and of fair average physical strength, many looked cachectic and deficient in muscular development.

GUN VESSELS.

Dart - - -	2400·	Mullet - - -	2000·
Griffon - - -	2714·2	Snipe - - -	1938·4
Jaseur - - -	2453·5	Speedwell - -	4254·5
Lee - - -	3107·6	Sparrow - - -	2750·

The Dart had been long on the coast, and the health of the ship's company generally was much impaired. Fevers of an intermittent and remittent type were prevalent in the Lady and Midsummer quarters of 1865, when the vessel was in the River Congo, and engaged in active operations against a refractory native tribe in the River Volta. The other diseases in this vessel were comparatively unimportant.

The Griffon had also been long stationed on the coast. The returns from her for this station during the period embraced in this report are only for six months, she having been ordered home to be paid off. Remittent fevers, the result of frequent service in rivers, constitute almost all her sickness.

The increased sick rate in the Jaseur is almost entirely dependent on remittent fever, which prevailed epidemically among the ship's company in the Midsummer quarter of 1865. The disease appeared on board while the ship was at anchor off Manque Grande about seven miles from the shore, but the medical officer thinks that it was contracted about ten days or a fortnight previously in the creek at the Dutch factory of Banana, where malarial fevers are rife.

The principal diseases in the Lee were remittent fever contracted by men employed on service on shore, or in the River Benin, rheumatism following attacks of fever, and ulcer. With regard to the latter disease the medical officer states that they were sometimes very slow to heal on account of the impoverished state of the men's blood from defective nourishment. During the Christmas quarter of 1864 the ship's company were only one day on fresh provisions, and during the previous quarter only five days.

West Coast of Africa Station.

GUN VESSELS *continued.*

Neither the Mullet nor the Snipe were much in excess of the average ratio. The diseases in the former were of a trivial character, principally boils, attributed to the prolonged use of salt provisions. There was a good deal of remittent and intermittent fever in the Snipe consequent upon a lengthened stay in the River Congo, during which the men were much employed on boat service. But for the great care that seems to have been taken in administering quinine as a prophylactic, this vessel would in all probability have shown a much higher sick rate.

The Speedwell was altogether employed in the Bights of Benin, for a long time at anchor off Great Popo, and afterwards cruizing between Whydah and Jackin. The ship's company were in a debilitated condition, and easily acted upon by the exciting causes of disease. Febrile affections, diarrhœa, and rheumatism were prevalent in this vessel. The Sparrow also was during the whole period employed cruizing in the Bights of Benin, and usually had a boat employed on detached service. Remittent and intermittent fevers, chiefly the latter, were not uncommon, and a large number of men were under treatment for boils and ulcers.

STEAM VESSELS.

Antelope - -	2785·6	Investigator - -	6766·6

Ephemeral fever and diarrhœa were the most prevalent affections in the Antelope, but she seems to have had very little active disease of any kind on board. She was much employed in the Bights, and was at anchor for some months off Jackin, occasionally cruizing as far as Whydah.

The Investigator was employed almost altogether in river service, and was long stationed in the Lagos lagoons. Her European complement averaged only about thirty officers and men, all of whom seem to have suffered from repeated attacks of remittent fever and ague. The most urgent disease besides these was dysentery, of which there were several cases, two of them proving fatal. This vessel illustrates well the dangers of river service on this station.

GUN BOATS.

Handy - - - -	2900·

The Handy, a peculiarly fitted vessel was stationed altogether in the middle of the lagoon at Lagos. Every care was taken of

of her small complement of officers and men, the latter of whom rarely visited the shore, and when they did so were in charge of a petty officer. Fevers, rheumatism and diarrhœa were the most prevalent affections among the men. West Coast of Africa Station.

Vindictive - - - -	2200

RECEIVING SHIPS.

For six months of the period embraced in this report the Vindictive was stationed at Fernando Po; she was subsequently removed to Jella Coffee, off which she took up moorings. In the Christmas quarter of 1864 there was a good deal of remittent fever amongst the ship's company, and this continued into the Lady and Midsummer quarters of 1865. This was the only form of disease from which the ship's company seem to have suffered at all.

The mean ratio of cases of all diseases and injuries placed on the sick list during the period was 2145·6 per 1,000 of mean force, which is somewhat in excess of the average ratio of this station. ALL CLASSES.

Invaliding.

The average ratio of invaliding on the West Coast of Africa, taken for seven consecutive years, was 45·5 per 1,000 of mean force. During the present period the increase over that ratio is very great, the mean ratio from all classes of vessels being 70·9 per 1,000. This is accounted for mainly by the fact that almost all the vessels had been long employed on the station, and their crews were in consequence more or less completely broken down in health. It will not be necessary to comment upon the diseases for which men were invalided from each individual vessel, as the same remarks apply nearly to all. A glance at Table III.* will show the ratios of invaliding in the different vessels, and it may be sufficient to say that more than one-half of them were rendered unserviceable by fevers or their sequelæ. Of the twenty-six men invalided from the Investigator, twenty-two were for fevers alone. Next to fevers the greatest loss of service by invaliding was from diseases of the lungs, then came affections of syphilitic origin, and following them rheumatism.

* *See* Appendix, West Coast of Africa.

Deaths.

West Coast of Africa Station.

Deaths.

The average death rate on the station for the seven years was 27·5 per 1,000 of mean force. During the present period there is a fractional excess over this, the ratio of mortality from all classes of vessels being 28·3 per 1000. There were forty-six deaths altogether, thirty-one being from disease, and fifteen from casualties, the former being in the ratio of 19.5, and the latter of 8·8 per 1,000 of mean force. The deaths from diseases were as follows. In the Archer there was one death from chronic diarrhœa. There were three deaths in the Rattlesnake, all from fever; three in the Jaseur, one from fever, one from consumption, and one from inflammation of the bowels: one in the Pandora from delirium tremens: one in the Snipe from fever; two in the Speedwell, one from fever, the other from dysentery; one in the Sparrow from consumption; one in the Antelope from delirium tremens; four in the Investigator, two being from fever, and two from dysentery; eight in the Zebra, of which two were from consumption, two from fever, one from delirium tremens, two from disease of the brain, and one from dysentery; four in the Mæander, two being from dysentery, one from ulceration of the stomach, and one from abscess of the liver; and two in the Handy, of which one was from fever, and one from inflammation of the liver.

CAPE OF GOOD HOPE AND EAST INDIAN STATION.

Cape of Good Hope and East Indian Station.

EARLY in 1864 the East Indian division of the China Station was added to the Cape of Good Hope Command, so that the boundaries of this station were very much enlarged, and it assumed the title of Cape of Good Hope and East India Station. Had the squadron employed in the East Indies been large, this alteration of boundary would, of course, have seriously affected any comparison between the ratios for the period embraced in the present return, and those of the Cape, and East Indian and China Commands for former years. But the force has always been so very small, that practically its withdrawal from the one station, and its addition to the other, has had little or no effect, in a statistical point of view, on the returns of either. The force is almost altogether employed about the Cape or in the Mozambique Channel, in the latter locality attempting to suppress the slave trade carried on by the Arabs on the East Coast of Africa.

During the twelve months for which this Report is drawn up the force on this Command comprised thirteen vessels. Of these one was a second rate, one a fourth rate, four were frigates of the sixth class; there were four sloops, two gun-vessels, and a stationary receiving ship in Simon's Bay.

The most formidable diseases to which ships' companies are exposed on this station are fevers of an intermittent or remittent type, the result of exposure to malarial influences in the Mozambique Channel. Bowel complaints of varying severity from diarrhœa to dysentery, which latter affection has on several occasions been imported into ships by captured slaves among whom the disease was epidemic, and cholera, which is frequently prevailing in Bombay, and has on several occasions committed great ravages in the Mauritius, where vessels have been infected by it. Rheumatism is a very common sequela of fever, and causes a considerable loss of service.

The

Cape of Good Hope and East Indian Station.

The average sick rate on the Cape of Good Hope Station for a period of seven consecutive years was 1652·1 per 1,000 of mean force. That ratio was exceeded during the present period by the following vessels :

SIXTH RATES.

Orestes - - -	2581·4	Valorous - -	1829.

The Orestes was only about nine months on the station during this period, and during all the time she was employed in the Mozambique Channel. Her men suffered much from febrile affections, chiefly ague and ephemeral fever, and from diarrhœa. There was a great loss of service also from ulcers, many of which were slow to heal, and inclined to take on an unhealthy action. Rheumatism was very common amongst the ship's company, and of a very obstinate nature.

The Valorous was employed altogether on the Cape colony, having been at different times stationed at Table Bay, Simon's Bay, Algoa Bay, and Natal. Common colds, rheumatism, and syphilis were the most prevalent diseases, the latter contracted at Cape Town and Simon's Bay, where it appears to be rife. Diarrhœa was rather prevalent in the Lady quarter of 1865.

SLOOPS.

Ariel - - -	1850·	Lyra - - -	2340·
Rapid - - -	1852·1		

The returns from the Ariel are only for about three months, she having left the station for England in the end of September 1864.

The Rapid was much employed in the Mozambique Channel, and was by no means an unhealthy vessel. In the Christmas quarter of 1864, while lying at the Mauritius, typhoid fever was introduced into the ship by one of the dingy boys, in whom the disease had a fatal termination. There were four cases altogether, the second being in the person of the other dingy boy. They were all of a milder character than the first, their severity decreasing, the surgeon says, in proportion to the distance intervening between the first introduction of the fever into the ship, and its reception by the individual. The most prevalent diseases in the Rapid were ephemeral fever and diarrhœa.

The

Cape of Good Hope and East Indian Station.

SLOOPS *continued.*

The crew of the Lyra were much engaged in the suppression of the slave trade in the Mozambique Channel. They seem to have been a good deal employed in different rivers, and to have been frequently detached from the ship on boat service. Fevers, some of a remittent type, but the majority of an ephemeral nature, catarrhal affections, and diarrhœa resulted from this exposure, and caused a considerable loss of service. Some of the worst cases of remittent fever were due to the combined effect of insolation and malaria.

GUN VESSEL.

Penguin - - - -	2540·

This vessel suffered very little from active disease of any kind. For some months she was in dock in Bombay undergoing repairs, her crew being hulked in a large vessel in the harbour. Subsequently she was employed in the Mozambique Channel, on the East Coast of Africa, and in the Red Sea. The greatest loss of service appears to have been from boils.

RECEIVING SHIP.

Seringapatam - - -	1736·8

This vessel, moored in Simon's Bay, is employed as a receiving ship for supernumaries. Although showing a slight increase over the average ratio, the diseases under treatment on board do not call for any comments.

ALL CLASSES.

The mean ratio of sickness in all classes of vessels was 1465· per 1,000 of mean force, which is considerably under the average ratio for seven years. A reference to Table VI. in the Appendix* will show that this ratio more nearly approaches those of the first five years of the septennial period.

* *See* Appendix, Cape of Good Hope and East Indian Station.

Invaliding.

The average ratio of invaliding on the Cape of Good Hope Station for the septennial period adopted in this Report was 32·2 per 1,000 of mean force. During the present period the invaliding rate is somewhat in excess of that being 37·2. Eighty-two officers and men altogether, were invalided, of whom three were for the sequelæ of fever; three for diseases of the brain and nervous system; fourteen for diseases of the lungs; eight for diseases of the heart and blood-vessels

Cape of Good Hope and East Indian Station.

vessels; seven for diseases of the alimentary canal; two for inflammatory affections of the liver; eight for rheumatism; one for syphilis; two for affections of the special senses; eleven for ulcers; one for caries; eleven for rupture; two for dropsy, and nine for casualties of different kinds.

Deaths.

During the septennial years period it will be perceived by Table V. in the Appendix* that the death rate on this station has varied very much, from 10·3 in fact, in 1859, to 23·7 in 1862, when the large mortality was mainly occasioned by the massacre of a boat's crew. The average ratio for the seven years was 15·9 per 1,000. This is exceeded during the period of the present returns by the following vessels.

* *See* Appendix, Cape of Good Hope and East Indian Station.

SECOND RATE.

Princess Royal - - -	20·5

There were sixteen deaths altogether in this vessel, of which fourteen were from disease. Of these five were from pulmonary consumption; one from bronchitis; three from disease of the heart; one from pyœmia: one from cholera; one from coup de soleil, and two from fever.

SIXTH RATE.

Highflyer - -	16·6	Wasp - - -	21·6

There was one death in the Highflyer from disease of the brain, and in the Wasp one from bronchitis, and one from dysentery. The other deaths in these two vessels were from casualties.

SLOOPS.

Ariel - - -	25·	Rapid - - -	43·4
Pantaloon - -	29·6	Lyra - - -	30·

There was one death in the Ariel from delirium tremens; one in the Pantaloon from rheumatism, the subject being a Krooman; and five in the Rapid, of which one was from fever; one from pulmonary consumption; two from dysentery; and one from disease of the heart. The other deaths in these vessels were from casualties.

Penguin - -	60·	Vigilant - - -	66·6	

Cape of Good Hope and East Indian Station.

GUN VESSELS.

Two men of the Penguin died of cholera, which was imported into the ship by captured slaves, amongst whom it was prevailing; and in the Vigilant there were two deaths from remittent fever. The other deaths in these vessels were accidental.

ALL CLASSES.

There were forty-four deaths altogether in the squadron, thirty from disease, and fourteen from casualties of various kinds. The mean ratio of mortality in all classes of vessels was 20· per 1,000 of mean force, which is much in excess of the average for the Cape of Good Hope Station.

CHINA STATION.

China Station.

THIRTY-FOUR vessels of various classes and a brigade of marines were employed on this station, the mean force corrected for time being 5,080 men. The different classes of vessels comprised one line-of-battle ship, of the second rate; seven frigates, two of which were fourth-rates, one a fifth-rate, and four sixth-rates; four sloops, one of which, being employed on surveying duty, had a small tender attached to her; seven gun-vessels, two steam vessels, a troop-ship, a store ship, a receiving ship, stationed at Hong Kong; a hospital ship, at Shanghai; seven gun-boats and a surveying vessel.

Diarrhœa and dysentery prevail to a greater extent on this station than in any part of the world, and cause much loss to the service, both by invaliding and death. Cholera has also at different times proved very destructive. Inflammatory affections of the liver, running on to abscess, are not unfrequent, and fever of an intermittent or remittent type is common in the various Chinese rivers, and in the latter form has occasionally prevailed epidemically, and very virulently at Hong Kong. Smallpox is rarely absent from the villages and towns on the seaboard of China.

The average ratio of cases of all diseases and injuries placed on the sick list for the septennial period was 2266·5 per 1,000 of mean force. It will be seen, by referring to Table I. in tne Appendix,* that the following vessels exceeded that ratio during the present period:

* *See* Appendix, China Station.

SECOND RATE.

Conqueror - - - -	2305·

This vessel conveyed the brigade of Royal Marines from England to Japan, and only arrived on the station in April 1864. Shortly after her arrival at Hong Kong, in the month of May, a severe form of diarrhœa, attacking both officers and

China Station.

and men, prevailed on board, and a few cases continued into the Michaelmas quarter. On the 12th of July 29 cases of dysentery were sent on board for treatment from the Royal Marine camp at Yokohama, where that disease was prevailing epidemically. Eight days afterwards it began to spread among the ship's company, the first person attacked being one of the sick-berth attendants, and from that time until the end of August dysentery and diarrhœa continued to prevail. In the month of November smallpox, which was prevailing extensively amongst the Japanese, made its appearance on board, and continued in an epidemic form until the 30th of January 1865, up to which time sixty-four men had been attacked. The majority of the cases were mild, but some were of a very virulent and fatal character.

Catarrh, rheumatism, syphilis, and boils were the other diseases that caused the largest loss of service in the ship.

GUN VESSELS.

Coquette - -	3647·	Algerine - -	2320·
Cormorant - -	2488·8	Leven - - -	5200·
Slaney - - -	3080·		

The Coquette was principally stationed on the North Coast of China, and in Japan. Diarrhœa and syphilis caused the largest loss of service, the latter disease being very prevalent in Japan, where there is no attempt whatever at surveillance of prostitution.

In the Cormorant, also, venereal diseases were very prevalent, and in the Michaelmas quarter of 1864 mild cases of fever were not uncommon. Otherwise, this vessel seems to have been tolerably healthy. The Slaney, also, was not an unhealthy vessel; she was chiefly in the extreme north of China and in the Yang-tse-Kiang, and rheumatism and venereal diseases caused the greatest loss of service.

The ratio of sickness in the Algerine was scarcely above the average sick ratio of the station, and she had little or no active disease amongst her crew.

The returns from the Leven are imperfect; but, from such as are in office, it would appear that while on the coast of Borneo, in the Lady quarter of 1865, cholera made its appearance among the crew and caused some mortality;—diarrhœa was at the same time very prevalent.

China Station.

Adventure - - - - -	2680·

TROOP SHIP.

This vessel arrived on the station in August 1864. Catarrh, diarrhœa, and venereal diseases were the most prevalent affections, and there were also a good many cases of ague after her arrival at Hong Kong.

STORE SHIP.

Hesper - - - -	2333·3

There was no disease of any importance on board the Hesper, the returns from which are only for a few months, during which she moved about a good deal, having been at Shanghai and Japan in April, and at Chifoo, in the Gulf of Pecheli, in June.

HOSPITAL SHIP.

Acorn - - - - - -	4533·3

This vessel is stationed permanently at Shanghai, and of her small complement, averaging only about thirty men, one-half are Chinese. During certain months of the year the locality is a very unhealthy one, and has been lately visited by an epidemic of cholera, from which the crew of the Acorn did not escape. In the Michaelmas quarter of 1864 cases of fever were frequent, and in two instances had a fatal termination.

The sick rate in the gun boats is scarcely above the average ratio.

Invaliding.

The diseases most prevalent on this station are unfortunately of such a nature as to cause a great loss by invaliding; chronic dysentery, the more obstinate forms of diarrhœa, severe cases of remittent fever, and inflammatory affections of the liver, almost always require removal from the station in order to save life, while the forms of syphilitic disease which are contracted in different parts of China and in Japan are so virulent as to render large numbers of men unserviceable. During the twelve months for which the report is rendered, no fewer than eighty-five men were invalided from this

this station for diseases of the genito-urinary organs, almost all of venereal origin, and forty-five for rheumatism, which in many instances was referable to a syphilitic taint. China Station.

The average ratio of invaliding in the East Indies and China station for the septennial period was 66· per 1,000 of mean force. During the present period the rate is only fractionally below the average, being 65·5.

A reference to Table II. in the Appendix* will show that the following vessels exceeded the average ratio. * *See* Appendix, China Station.

SECOND RATES.

Conqueror - - - -	112·5

Forty-five men were invalided from this vessel, of whom four were for diseases of the lungs; fifteen for affections of the bowels, six of whom were for dysentery, and nine for diarrhœa; eight for venereal diseases; fourteen for rheumatism; one for inflammation of the liver; two for dyspepsia; and one for a wound.

FOURTH RATES.

Severn - - - -	93·3

There were thirty-five men invalided from the above ship. Of these one was for epilepsy; one for disease of the heart; eight for diseases of the organs of respiration; three for bowel complaints; four for syphilis; seven for rheumatism, all of which are stated to have been of syphilitic origin; three for liver complaints; three for ulcers; three for dropsy; one for blindness; and one for hernia.

SLOOPS.

Perseus - - - -	94·1

Sixteen men were invalided from the Perseus. Two of these were for the sequelæ of fever; one for disease of the lungs; two for bowel complaints; four for venereal diseases; two for liver complaint; two for rheumatism; two for dyspepsia; and one for a disease of the eyes.

China Station.

GUN VESSELS.

Ringdove - -	85·7	Osprey - - -	82·3
Coquette - -	117·6	Algerine - -	80·
Cormorant - -	88·8	Leven - - -	200·

From these vessels thirty-seven men in all were invalided. Of these two were for diseases of the brain and nervous system; four for diseases of the lungs; four for diarrhœa or dysentery; one for liver complaint; five for rheumatism; seven for venereal disease; two for dropsy; two for dyspepsia; one for an affection of the eyes; four for ulcers; two for hernia: and one for the result of a casualty.

STEAM VESSELS.

Coromandel - - - - -	120·

One man was invalided from the Coromandel for disease of the lungs; one for ulcer; and one for dyspepsia.

STORE SHIP.

Hesper - - - - -	266·6

Four men were invalided from this vessel, two for bowel complaints; one for ulcer; and one for rheumatism.

SURVEYING VESSELS.

Rifleman - - - - -	66·6

This rate, it will be perceived, is almost precisely the same as the average invaliding-rate of the station. Six men were invalided from the vessel, of whom one was for the sequelæ of fever; one for disease of the heart; one for dysentery; one for syphilitic rheumatism; one for ulcer; and one for dyspepsia.

In the marine brigade the ratio of invaliding was in excess of the average, being 84·5. Of forty-one invalided two were for diseases of the brain and nervous system; two for disease of the heart; eight for diseases of the organs of respiration, six of whom were phthisical; six for bowel complaints, chiefly dysentery; ten for venereal diseases; six for ulcers; three for rheumatism; three for wounds; and one for dyspepsia.

ALL CLASSES. During the twelve months the total number invalided from all classes of vessels, and from the brigade of marines was 333.

333. Nine of these were for the sequelæ of fever; fourteen for various diseases of the brain and nervous system; thirteen for functional or organic diseases of the heart; forty-one for diseases of the organs of respiration, chiefly consumption; forty-six for diseases of the intestinal canal, principally diarrhœa and dysentery; one for the sequelæ of smallpox; one for disease of the kidneys; eighty-three for venereal diseases; twenty-four for ulcers; ten for inflammatory affections of the liver; four for diseases of the special senses; seventeen for dyspepsia; forty-five for rheumatism, which in many cases was of syphilitic origin; five for dropsy; two for diseases of the bones and joints; nine for the effects of wounds and casualties, and nine for hernia. China Station.

Deaths.

The death-rate on this station has always been high. During the septennial period the average is 45·4 per 1,000 of mean force. It will be observed by Table 6 in the Appendix,* that during the present period it is as low as ever it has been, excepting in 1861.

* *See* Appendix, China Station.

The average ratio is only exceeded by the Conqueror, the Coquette, the Osprey, the Leven, and the Marine Battalion. Collectively the seven gun-boats also exceed the average.

SECOND RATES.

Conqueror - - - -	55·

There were twenty-two deaths altogether in the Conqueror, nineteen of which are referable to disease, and three to casualties. Of the deaths from disease, one was from aneurism of the aorta; four from pulmonary consumption; five from dysentery, and nine from smallpox. The two latter diseases, it will be recollected, were imported into the ship at Japan, and prevailed for some time in an epidemic form.

GUN VESSELS.

Coquette - -	47·	Osprey - - -	47·
Leven - - -	200·		

Four deaths from disease occurred in the Coquette. Of these one was from fever; one from apoplexy; one from disease of the brain, and one from cholera.

China Station.

GUN VESSELS *continued.*

In the Osprey there were three deaths from disease, and one man was drowned. Of the deaths from disease, one was from smallpox, one from dysentery, and one from cholera.

Four deaths from cholera occurred in the Leven, while that vessel was on the coast of Borneo.

MARINE BRIGADE.

The mortality in the brigade was in the ratio of 49·4 per 1,000 of mean force. There were twenty-four deaths in all, twenty-one of which are attributable to disease, and three deaths were consequent upon wounds received in action. Of the deaths from disease, one was from apoplexy induced by drink, two from disease of the heart, two from pulmonary consumption, and sixteen from dysentery.

ALL CLASSES

There were 146 deaths altogether in the squadron, of which forty-two were the result of injuries of various kinds. Of the deaths from disease four were from fever; three from apoplexy; one from paralysis attributed to a syphilitic taint; two from delirium-tremens; one from disease of the brain; six from disease of the heart; seventeen from diseases of the respiratory organs, chiefly phthisis; forty-seven from diseases of the bowels, principally dysentery and cholera; one from disease of the kidneys; one from syphilis; one from pelvic abscess; sixteen from smallpox; two from disease of the liver, and the cause of two deaths occurring in the gunboats is not stated.

The mean ratio of mortality in all classes of vessels during the period of the present return was 28·7 per 1,000 of mean force, which is very much below the average ratio of the East Indies and China Station.

AUSTRALIAN STATION.

Australian Station.

Four frigates, one gun vessel, and three sloops constituted the squadron on this station during the period embraced in the present Return. The mean force corrected for time was 1,310 men.

This is a very healthy station, the climate of that portion of it in which the squadron is principally employed being temperate, and milder in the winter months than that of the Home Station. In summer diarrhœa is not uncommon at Sydney and Melbourne, and occasional cases of dysentery are met with. Ephemeral fevers, catarrh, and rheumatism are the most common affections, however. There is not much venereal disease on any part of the station.

The average ratio of cases of all diseases and injuries placed on the sick list during the septennial period was 1315·1 per 1,000 of mean force. That ratio was exceeded during the present period by the following vessels.

SIXTH RATES.

Brisk - - -	1390·	Esk - - -	1379·1

The Returns from the Brisk are only for six months. She was upon the whole a very healthy ship.

The Esk, which was principally employed in New Zealand, was also a healthy ship. There was not a single case of venereal disease in this vessel throughout the year.

GUN VESSEL.

Eclipse - - - -	2275·

Febrile affections and catarrh were frequent in this vessel, attributed to the leaky condition of her upper deck. There were some cases of dysentery, but chiefly amongst men who had previously suffered from this disease. There were only two cases of venereal disease during the year.

Australian Station.

SLOOPS.

Falcon - - -	1896·9	Harrier - - -	1330·

Catarrhal affections and diarrhœa were very prevalent in the Falcon during the Michaelmas and Christmas quarters of 1864, and there was a considerable loss of service from rheumatism and from minor casualties.

The Harrier was only about six months on the station during this period, and with the exception of a few cases of venereal disease contracted at Sydney, her crew enjoyed very fair health.

ALL CLASSES. The total number of cases of all diseases and injuries in all classes of vessels, placed upon the sick list during the twelve months, was 1,679, or in the ratio 1,281·6 per 1,000 of mean force, which is considerably less than the average ratio.

Invaliding.

The average rate of invaliding on the Australian station during the seven years period was 29·8 per 1,000 of mean force. This was exceeded during the present period by the following vessels.

SIXTH RATES.

Brisk - - -	30·	Esk - - - -	33·3

One man was invalided from the Brisk for consumption, one for disease of the heart, and one for disease of the brain.

Eight men were invalided from the Esk. Of these one was an epileptic; one was insane; one had disease of the liver; one was for dyspepsia; one for disease of the kidneys; two for stricture; and one for the effects of a wound sustained in action.

GUN VESSEL.

Eclipse - - - -	62·5

Five men were invalided from the Eclipse, one for the sequelæ of fever; one for epilepsy; one for dysentery; one for general debility; and one for hernia.

Falcon - - - -	36·3

Australian Station.

SLOOPS.

Of six men invalided from this vessel, two were for pulmonary consumption; one for neuralgia; one for spinal disease; one for tape-worm; and one for scrofula.

ALL CLASSES.

Thirty-five men in all were invalided from the squadron during the period of this Return, of whom one was for the sequelæ of fever; five for diseases of the brain and nervous system; one for disease of the heart; six for diseases of the organs of respiration, chiefly phthisis; two for liver complaint; one for disease of the kidneys; two for affections of the intestinal canal; two for stricture; one for ulcer; one for scrofula; three for dyspepsia; one for debility; four for rheumatism; four for casualties; and one for hernia. The ratio of invaliding throughout the year was 26·7 per 1,000 of mean force, which is below the average ratio.

Deaths.

The average rate of mortality on this station for the septennial period was 12·6 per 1,000 of mean force, one-half of which was attributable to casualties. During the present period the mean death rate was only 11·4. Of fifteen deaths, one in the Brisk was from a casualty; there were four in the Esk, one being from apoplexy occasioned by excessive drinking; one from phthisis; the cause of one death is not given; and one was the result of an accident. One death, the result of an accident, occurred in the Miranda. In the Curaçoa there were two deaths, one being from diphtheria, and the other from gastritis. In the Falcon there was a death from consumption; in the Harrier six altogether, one being from fever; one from abscess of the lung following fever; and four from injuries. The ratio of deaths from disease on this station was 6·1, and from injuries 5·3 per 1,000 of mean force.

IRREGULAR FORCE.

Irregular Force.

This force comprised thirty-six vessels of various denominations, and three detachments of marines, one stationed at Vancouver's Island, one at the Falkland Islands, and one at Somerset in Australia. The mean force corrected for time, was 2,690.

The duties devolving upon the ships' companies are very various. Some are fitting out, and others paying off ships at the home ports. Some of the vessels are employed conveying troops or stores to different parts of the world, while others are making the passage to or from their respective stations; but none are for any great length of time in any one locality. It thus happens, that in the returns from these vessels, diseases are to be met with peculiar to every variety of climate.

The average ratio of all cases of disease and injury placed on the sick list, during the septennial period, was 1,547 per 1,000 of mean force. This ratio was exceeded during the present period by the following vessels:

FOURTH RATES.

Forte - - -	1750	Narcissus - - -	2113·3

The Forte was on the passage home from the Brazils, where she had been stationed as flagship. The greatest loss of service was from common colds and diarrhœa.

In the Michælmas Quarter of 1864, the Narcissus was on her passage from the Cape of Good Hope to England to be paid off, and during that time her ship's company were very healthy. In the Midsummer Quarter of 1865, however, she had been re-commissioned and was on her passage to the south east coast of America, and it was during this period that

that the loss of service from affections of the respiratory organs, and from venereal diseases, caused the above sick rate.

Irregular Force.

FIFTH RATE.

Terrible - - - -	1660·

This vessel was only commissioned in April 1865. Venereal diseases and boils, caused the greatest loss of service.

SLOOPS.

Brisk - - -	2175·	Highflyer - -	1846·1
Clio - - -	2153·3	Niger - - -	3088·8
Gladiator - -	1655·	Scout - - -	2400·

Of these vessels the Brisk, the Clio, the Highflyer, and the Scout were fitting out, and on their passage to their different stations. Catarrhs, venereal diseases, rheumatism and boils made up the sum of their sick lists. In the Niger, on arriving on the North American and West Indian Station, fever became very prevalent. The crew suffered also a good deal from diarrhœa at Bermuda. The Gladiator was employed conveying stores between England and the West Coast of Africa. Her sick rate does not much exceed the average. It was caused chiefly by venereal diseases, rheumatism and ephemeral fever.

SLOOPS.

Harrier - - -	1600·	Mutine - - -	1577·7
Hornet - - -	2333·3	Sphinx - - -	1933·3

In the Harrier, on her passage home from New Zealand, the greatest loss of service was caused by minor accidents. Rheumatic and catarrhal affections, with casualties, formed the greater part of the sickness in the Hornet, which was on her way home from the East Indies to be paid off. The Mutine was newly commissioned and making the passage to her station, the Pacific. Venereal diseases caused the greatest loss of service in her. And in the Sphinx, which was also a newly commissioned ship, and had not left England at the close of the period for which this return is rendered, the principal affections were common colds and venereal diseases.

Irregular Force.

GUN VESSELS.

Assurance - -	1941·1	Sparrowhawk - -	2450·
Landrail - - -	2600·	Serpent - - -	1866·6
Philomel - -	2400·	Torch - - -	3600·

There was nothing of a special character in connection with these vessels worthy of note. The Landrail, Sparrowhawk, Serpent and Torch, were newly commissioned, and on their way to their respective stations; the Assurance was for some time protecting the fisheries on the coast of Scotland, and afterwards in the Mediterranean. The Philomel was on her passage home from the West Coast of Africa and paying off.

GUN BOAT.

Gleaner - - - -	1900·

This vessel was newly commissioned and on her passage to the South East Coast of America. She had very little sickness.

TROOP SHIPS.

Himalaya - -	1615·3	Urgent - - -	2021·4
Tamar - - -	1863·1	Vulcan - - -	3066·6

The Himalaya was principally employed conveying troops between England, Ireland, and different parts of the Mediterranean; the Tamar between England and the West Indies, Cape of Good Hope and China. The Urgent made one voyage to Newfoundland, but otherwise she was chiefly on the Home Station. The Vulcan had been on the China Station, but during this period was on her passage home. The most prevalent diseases in all these vessels were venereal diseases, contracted either in England or China, and catarrh. In the Tamar and Vulcan there were a good many cases of diarrhœa and dysentery.

STORE SHIPS.

Megæra - - - -	1763·6

The Megæra was employed conveying stores between England, Gibraltar, and Rio de Janeiro. Ephemeral fever, bowel complaints and venereal diseases were the most prevalent affections.

The

The ratio of sickness in this detachment was 1,950 per 1,000 of force. The greatest loss of service was occasioned by casualties.

Invaliding.

The ratio of invaliding in the Irregular Force for the Septennial period, was 23·9 per 1,000 of mean force. During the present period it was only 22·6. Sixty-one officers and men were invalided, of whom nine were for various diseases of the lungs; seven for diseases of the brain and nervous system, chiefly epilepsy, eleven for organic or functional diseases of the heart; two for dysentery; two for diseases of the kidneys; six for diseases of the genito-urinary organs; nine for ulcers; three for affections of the special senses; one for dyspepsia; four for rheumatism; four for hernia; and three for casualties.

Deaths.

The death rate for seven years, was 11· per 1,000 of mean force, nearly one-half of which was attributable to casualties. During the present period it was only 5·5 per 1,000, of which one-third was from casualties. There were fifteen deaths altogether in the force, ten of which were attributable to disease. Of these two were from fever; two from phthisis; one from aneurism of the aorta; one from inflammation of the spinal cord; one from smallpox; two from dysentery, and one from syphilitic disease of the brain.

APPENDIX.

HOME STATION.

Table I.

Showing the Average Complements of the different Ships, corrected for Time; the Total Number of Cases of Disease and Injury entered on the Sick List; with the Ratio per 1,000 of Mean Force.

Average Ratio for Seven Years, 1125·5 per 1,000.

Rate, &c.	NAMES OF SHIPS.	Average Complement corrected for Time.	Number of Cases of Disease and Injury.	Ratio per 1,000 of Mean Force.
Iron Clads	Achilles	470	1,006	2140·4
	Black Prince	690	564	817·3
	Defence	430	538	1251·1
	Enterprise	50	158	3160·
	Hector	500	498	996·
	Prince Consort	550	774	1407·2
	Research	125	262	2096·
	Royal Sovereign	160	150	937·5
	Warrior	430	339	788·4
		3,405	4,289	1259·6
Second Rate	Edgar	815	1,021	1252·7
Fourth Rates	Aurora	500	978	1956·
	Liverpool	290	377	1300·
		790	1,355	1715·1
Stationary Ships	Asia	1,600	513	320·6
	Cambridge	620	609	982·2
	Canopus	325	432	1329·2
	Cumberland	855	400	467·8
	Duke of Wellington	450	498	1106·6
	Excellent	970	1,107	1141·2
	Fisgard	410	518	1263·4

APPENDIX—HOME STATION—Table I.—*continued.*

Rate, &c.	NAMES OF SHIPS.	Average Complement corrected for Time.	Number of Cases of Disease and Injury.	Ratio per 1,000 of Mean Force.
Stationary Ships—*continued.*	Formidable	240	282	1175·
	Indus	1,120	600	535·7
	Royal Adelaide	340	192	564·7
	Victory	375	320	853·3
		7,305	5,471	748·9
Drill Ships	Active	35	30	857·1
	Brilliant	30	23	766·6
	Castor	50	42	840·
	Dædalus	45	47	1044·4
	Eagle	30	30	1000·
	President	40	29	725·
	Saturn	70	54	771·4
	Trincomalee	30	11	366·6
	Winchester	30	19	633·3
		360	285	791·6
Coast Guard Ships	Blenheim	410	284	692·6
	Dauntless	210	188	895·2
	Donegal	340	645	1897·
	Frederick William	310	377	1216·1
	Hastings	190	120	631·
	Hawke	200	189	945·
	Irresistible	310	382	1232·2
	Lion	360	350	972·2
	Majestic	60	132	2200·
	Pembroke	175	287	1640·
	Royal George	340	541	1591·1
	St. George	345	236	684·5
	Trafalgar	355	327	921·1
		3,605	4,058	1125·6
Training Ships	Boscawen	445	287	644·9
	Britannia	460	716	1556·5
	Implacable	390	433	1110·2
	Impregnable	745	460	617·4
	St. Vincent	615	714	1169·7
	Wellesley	450	243	540·
		3,105	2,853	918·8

APPENDIX—HOME STATION—Table I.—*continued.*

Rate, &c.	NAMES OF SHIPS.	Average Complements corrected for Time.	Number of Cases of Disease and Injury.	Ratio per 1,000 of Mean Force.
Steam Vessels -	Dasher - - - -	215	269	1251·1
	Lizard - - - -	45	31	688·8
	Medusa - - - -	50	67	1340·
	Salamis - - - -	60	97	1616·6
	Jackal - - - -	60	21	350·
		430	485	1127·9
Yachts - - -	Victoria and Albert -	185	75	405·4
	Osborne - - -	80	124	1550·
		265	199	750·9
Store Ships - -	Dee - - - -	70	45	642·8
	Dromedary - - -	60	45	750·
	Ferret - - - -	80	104	1300·
	Fox - - - -	100	138	1380·
	Geyser - - -	150	236	1573·3
	Industry - - -	65	50	769·2
		525	618	1177·1
Training Brigs -	Sealark - - -	80	146	1575·
	Squirrel - - -	125	119	952·
		205	265	1292·6
	TOTAL of all Classes - - -	20,810	20,899	1004·2

APPENDIX—HOME STATION—*continued.*

TABLE II.

SHOWING the Numbers Invalided from each Ship, with the Ratio of Mean Force.

Average Ratio for Six Years, 29·2 per 1,000.

Rate, &c.	NAMES OF SHIPS.	Number Invalided.	Ratio per 1,000 of Mean Force.
Iron Clads	Achilles	17	36·1
	Black Prince	11	15·9
	Defence	7	16·2
	Enterprise	11	220·
	Hector	21	42·
	Prince Consort	12	21·8
	Research	4	32·
	Royal Sovereign	1	6·2
	Warrior	6	13·9
		90	26·4
Second Rate	Edgar	39	47·8
Fourth Rates	Aurora	22	44·
	Liverpool	7	24·1
		29	36·7
Stationary Ships	Asia	24	15·
	Cambridge	15	24·1
	Canopus	21	64·6
	Cumberland	22	25·7
	Duke of Wellington	35	77·7
	Excellent	38	39·1
	Fisgard	12	29·2
	Formidable	8	33·3
	Indus	14	12·5
	Royal Adelaide	8	23·5
	Victory	6	16·
		203	27·7

APPENDIX—HOME STATION—Table II.—*continued.*

Rate, &c.	NAMES OF SHIPS.	Number Invalided.	Ratio per 1,000 of Mean Force.
Drill Ships	Active	1	28·5
	Brilliant	1	33·3
	Castor	—	—
	Dædalus	—	—
	Eagle	1	33·3
	President	—	—
	Saturn	—	—
	Trincomalee	2	66·6
	Winchester	—	—
		5	13·8
Coast Guard Ships	Blenheim	—	—
	Dauntless	5	23·8
	Donegal	2	5·8
	Frederick William	8	25·8
	Hastings	3	15·7
	Hawke	4	20·
	Irresistible	12	38·7
	Lion	1	2·7
	Majestic	4	66·6
	Pembroke	4	22·8
	Royal George	2	5·8
	St. George	4	11·5
	Trafalgar	1	2·8
		50	13·8
Training Ships	Boscawen	18	40·4
	Britannia	1	2·1
	Implacable	1	2·5
	Impregnable	17	22·8
	St. Vincent	75	121·9
	Wellesley	18	40·
		130	41·8
Steam Vessels	Dasher	4	18·6
	Lizard	1	22·2
	Medusa	4	80·
	Salamis	5	83·3
	Jackal	—	—
		14	32·5

APPENDIX—HOME STATION—Table II.—*continued.*

Rate, &c.	NAMES OF SHIPS.	Number Invalided.	Ratio per 1,000 of Mean Force.
Yachts - - -	Victoria and Albert -	—	—
	Osborne - - - -	—	—
		—	—
Store Ships - -	Dee - - - - -	1	14·2
	Dromedary - - -	1	16·6
	Ferret - - - -	—	—
	Fox - - - -	—	—
	Geyser - - - -	3	20·
	Industry - - -	2	30·7
		7	13·3
Training Brigs -	Sealark - - - -	2	25·
	Squirrel - - -	—	—
		2	9·7
	TOTAL of all Classes - - -	569	27·3

APPENDIX—HOME STATION—*continued.*

TABLE III.

SHOWING the Number of Deaths from Disease and Injury in each Ship, with the Ratio of Mortality per 1,000 of Mean Force.

Average Ratio for Seven Years, 9·8 per 1,000.

Rate, &c.	NAMES OF SHIPS.	Number of Deaths from Disease.	Number of Deaths from Injury.	Total Number of Deaths.	Ratio per 1,000 of Mean Force.
Iron Clads	Achilles	4	1	5	10·6
	Black Prince	5	1	6	8·6
	Defence	4	-	4	9·3
	Enterprise	—	—	—	—
	Hector	3	-	3	6·
	Prince Consort	4	1	5	8·9
	Research	1	-	1	8·
	Royal Sovereign	2	-	2	12·5
	Warrior	2	-	2	4·6
		25	3	28	8·2
Second Rate	Edgar	3	-	3	3·6
Fourth Rate	Aurora	2	3	5	10·
	Liverpool	1	-	1	3·4
		3	3	6	7·5
Stationary Ships.	Asia	9	1	10	6·2
	Cambridge	5	-	5	8·
	Canopus	3	-	3	9·2
	Cumberland	3	1	4	4·6
	Duke of Wellington	1	-	1	2·2
	Excellent	6	-	6	6·1
	Fisgard	2	3	5	12·1
	Formidable	1	-	1	4·1
	Indus	8	4	12	10·7
	Royal Adelaide	5	-	5	14·7
	Victory	1	-	1	2·6
		44	9	53	7·2

APPENDIX—HOME STATION—Table III.—*continued.*

Rate, &c.	NAMES OF SHIPS.	Number of Deaths from Disease.	Number of Deaths from Injury.	Total Number of Deaths.	Ratio per 1,000 of Mean Force.
Drill Ships -	Active - - -	—	—	—	—
	Brilliant - - -	1	- -	1	33·3
	Castor - - -	—	—	—	—
	Dædalus - -	1	- -	1	22·2
	Eagle - - -	1	- -	1	33·3
	President - -	1	- -	1	25·
	Saturn - - -	—	—	—	—
	Trincomalee - -	1	- -	1	33·3
	Winchester - -	—	—	—	—
		5	- -	5	13·8
Coast Guard Ships.	Blenheim - -	1	1	2	4·8
	Dauntless - -	1	1	2	9·5
	Donegal - - -	4	- -	4	11·7
	Frederick William -	—	—	—	—
	Hastings - -	3	1	4	21·
	Hawke - - -	3	- -	3	15·
	Irresistible - -	2	- -	2	6·4
	Lion - - -	1	1	2	5·5
	Majestic - - -	- -	1	1	16·6
	Pembroke - -	4	3	7	40·
	Royal George - -	2	3	5	14·7
	St. George - -	1	1	2	5·7
	Trafalgar - -	2	- -	2	5·6
		24	12	36	9·9
Training Ships.	Boscawen - -	1	- -	1	2·2
	Britannia - -	3	- -	3	6·5
	Implacable - -	1	- -	1	2·5
	Impregnable - -	3	- -	3	4·
	St. Vincent - -	1	1	2	3·2
	Wellesley - -	6	- -	6	13·3
		15	1	16	5·1
Steam Vessels	Dasher - - -	1	- -	1	4·6
	Lizard - - -	2	- -	2	44·4
	Medusa - - -	—	—	—	—
	Salamis - - -	1	- -	1	16·6
	Jackal - - -	—	—	—	—
		4	- -	4	9·3

APPENDIX—HOME STATION—Table III.—*continued.*

Rate, &c.	NAMES OF SHIPS.	Number of Deaths from Disease.	Number of Deaths from Injury.	Total Number of Deaths.	Ratio per 1,000 of Mean Force.
Yachts	Victoria and Albert	—	—	—	—
	Osborne	-	1	1	12·
		-	1	1	3·7
Store Ships	Dee	—	—	—	—
	Dromedary	1	-	1	16·6
	Ferret	—	—	—	—
	Fox	—	—	—	—
	Geyser	4	-	4	26·6
	Industry	—	—	—	—
		5	-	5	9·5
Training Brigs.	Sealark	—	—	—	—
	Squirrel	—	—	—	—
		—	—	—	—
TOTAL of all Classes		128	29	157	7·5

APPENDIX—HOME STATION—*continued.*

TABLE IV.

SHOWING the Number and Nature of Fatal Casualties in each Ship.

Rate, &c.	NAMES OF SHIPS.	Number of Deaths.	Accidents, Injuries, &c.
Iron Clad - -	Achilles - - -	1	Ribs fractured by the mizen topmast falling from aloft.
Stationary Ship -	Asia - - -	1	Injury of spine; fell into a dock.
Fourth Rate -	Aurora - - -	2	Drowned; one bathing.
		1	Injuries from falling from aloft.
Iron Clad - -	Black Prince - -	1	Fracture of the skull; fell over a cliff.
Coast Guard Ship	Blenheim - -	1	Drowned; supposed to have jumped overboard.
Stationary Ship -	Cumberland - -	1	Fracture of the ribs and legs, by surging of a hawser.
Coast Guard Ship	Dauntless - -	1	Drowned; fell into a dock.
Stationary Ship -	Fisguard - -	1	Suicide, by cutting his throat.
		1	Drowned, how, not stated.
		1	Choked by food getting into the larynx.
Coast Guard Ship	Hastings - -	1	Effects of submersion; was capsized in a boat.
Stationary Ship -	Indus - - -	4	Drowned; one bathing, one suicide, one fell overboard, one not known how.
Coast Guard Ship	Lion - - -	1	Alcoholic poisoning.
	Majestic - - -	1	Fracture of cervical vertebræ; fell from aloft.
Yacht - -	Osborne - - -	1	Drowned; fell overboard.
Coast Guard Ship	Pembroke - -	3	Drowned; two, by the capsizing of a boat.
Iron Clad - -	Prince Consort -	1	Drowned; supposed suicide.
Coast Guard Ship	Royal George - -	1	Concussion of brain; fell from aloft.
		2	One found drowned; one supposed to have fallen into the sea at night.
	St. George - -	1	Drowned; fell overboard from a boat.
Training Ship -	St. Vincent - -	1	Fracture of skull; fell from mizen top.
	TOTAL - - -	29	

TABLE V.

SHOWING the Comparative Sickness in the different Classes of Ships.

RATES.	Average Complements corrected for Time.	Number of Cases of Disease and Injury.	Ratio per 1,000 of Mean Force.	Number Invalided.	Ratio per 1,000 of Mean Force.	Number of Deaths			Ratio per 1,000 of Mean Force.
						From Disease.	From Injury.	TOTAL.	
Iron Clads - - -	3,405	4,289	1259·6	90	26·4	25	3	28	8·2
Second Rates - - -	815	1,021	1252·7	39	47·8	3	- -	3	3 6
Fourth Rates - - -	790	1,355	1715·1	29	36·7	3	3	6	7·5
Stationary Ships - -	7,305	5,471	748·9	203	27·7	44	9	53	7 2
Drill Ships - - -	360	285	791·6	5	13·8	5	- -	5	13·8
Coast Guard Ships - -	3,605	4,058	1125·6	50	13·8	24	12	36	9·9
Training Ships - -	3,105	2,853	918·8	130	41·8	15	1	16	5·1
Steam Vessels - - -	430	485	1127·9	14	32·5	4	- -	4	9·3
Yachts - - - - -	265	199	750·9	- -	- -	- -	1	1	3·7
Store Ships - - -	525	618	1177·1	7	13·3	5	- -	5	9·5
Training Brigs - -	205	265	1292·6	2	9·7	—	—	—	—
TOTAL - - -	20,810	20,899	1004·2	569	27·3	128	29	157	7·5

TABLE VI.

SHOWING the Number of Cases of Disease and Injury; the Number Invalided and Dead; with the Ratio per 1,000 of Mean Force for Seven Years.

YEAR.	Average Complements corrected.	Number of Cases of Disease and Injury.	Ratio per 1,000 of Mean Force.	Number Invalided.	Ratio per 1,000 of Mean Force.	Number of Deaths			Ratio per 1,000 of Mean Force.
						From Disease.	From Injury.	TOTAL.	
1856 - -	12,445	13,776	1106·5	- Not stated -		104	25	129	10·4
1857 - -	10,400	11,109	1068·4	340	32·7	86	25	111	10·7
1858 - -	12,600	15,710	1246·9	302	23·9	86	35	121	9·6
1859 - -	19,300	22,775	1180·	516	26·7	127	61	188	9·7
1860 - -	23,500	25,670	1092·3	690	29·4	193	70	263	11·2
1861 - -	22,900	24,525	1071·	715	31·2	157	63	220	9·6
1862 - -	20,760	23,641	1138·8	640	30·8	128	45	173	8·2
TOTAL - -	121,905	137,206	1125·5	3,203	29·2	881	324	1,205	9·8
1864–5 -	20,810	20,899	1004·2	569	27·3	128	29	157	7·5

APPENDIX—*continued.*

MEDITERRANEAN STATION.

TABLE I.

SHOWING the Average Complements of the different Ships, corrected for Time; the Total Number of Cases of Disease and Injury entered on the Sick List; with the Ratio per 1,000 of Mean Force.

Average Ratio for Seven Years, 1485·3 per 1,000.

Rate, &c.	NAMES OF SHIPS.	Average Complements corrected for Time.	Number of Cases of Disease and Injury.	Ratio per 1,000 of Mean Force.
First	Marlborough	420	404	961·9
	Victoria	635	1,096	1725·9
		1,055	1,500	1421·8
Second	Gibraltar	860	908	1055·8
	Revenge	765	647	845·7
		1,625	1,555	956·9
Third	Meeanee	610	1,006	1649·1
Fourth	Orlando	600	913	1521·6
	Phœbe	520	592	1138·4
	Liffey	570	860	1508·7
		1,690	2,365	1399·3
Iron-cased Ships	Enterprise	55	180	3272·7
	Royal Oak	600	901	1501·6
	Resistance	455	420	923·
		1,110	1,501	1352·2

APPENDIX—MEDITERRANEAN STATION—Table I.—*continued.*

Rate, &c.	NAMES OF SHIPS.	Average Complement corrected for Time.	Number of Cases of Disease and Injury.	Ratio per 1,000 of Mean Force.
Sixth	Cossack	275	834	3032·7
	Magicienne	230	243	1056·5
		505	1,077	2132·6
Sloops	Pelican	180	276	1533·3
	Chanticleer	190	243	1278 9
	Trident	55	94	1709·
	Racer	140	97	692·8
		565	710	1256·6
Gun Vessels	Foxhound	30	19	633·3
	Surprise	95	56	589·4
	Wanderer	100	149	1490·
	Weser	60	81	1350·
		285	305	1070·1
Steam Vessels	Hydra	125	184	1472·1
	Caradoc	60	63	1050·
	Psyche	65	128	1969·2
	Firefly	85	90	1058·8
		335	465	1388·
Gun Boat	Cockatrice	35	63	1800·
Receiving Ship	Hibernia	230	176	765·2
	TOTAL of all Classes	8,045	10,723	1332·8

APPENDIX—MEDITERRANEAN STATION—*continued.*

TABLE II.

SHOWING the Numbers invalided from each Ship, with the Ratio per 1,000 of Mean Force.

Average Ratio for Seven Years, 40·1 per 1,000.

Rate, &c.	NAMES OF SHIPS.	Number Invalided.	Ratio per 1,000 of Mean Force.
First	Marlborough	6	14·2
	Victoria	38	59·8
		44	41·7
Second	Gibraltar	39	45·3
	Revenge	12	15·6
		51	31·3
Third	Meeanee	43	70·4
Fourth	Orlando	18	30·
	Phœbe	17	32·6
	Liffey	12	21·
		47	27·8
Iron cased Ships	Enterprise	15	272·7
	Royal Oak	51	85·
	Resistance	20	43·9
		86	77·4
Sixth	Cossack	9	32·7
	Magicienne	4	17·3
		13	25·7

APPENDIX—MEDITERRANEAN STATION—Table II.—*continued.*

Rate, &c.	NAMES OF SHIPS.	Number Invalided.	Ratio per 1,000 of Mean Force.
Sloops	Pelican	7	38·8
	Chanticleer	1	5·2
	Trident	—	—
	Racer	8	57·1
		16	28·3
Gun Vessels	Surprise	—	—
	Wanderer	4	40·
	Weser	1	16·6
		5	17·5
Steam Vessels	Hydra	1	8·
	Caradoc	2	33·3
	Psyche	1	15·3
	Firefly	1	11·7
		5	14·9
Gun Boat	Cockatrice	1	28·5
Receiving Ship	Hibernia	1	4·3
	TOTAL	312	38·7

APPENDIX—MEDITERRANEAN STATION—*continued.*

TABLE III.

SHOWING the Number of Deaths from Disease and Injury in each Ship, with the Ratio of Mortality per 1,000 of Mean Force.

Average Ratio for Seven Years, 10·8 per 1,000.

Rate, &c.	NAMES OF SHIPS.	Number of Deaths from Disease.	Number of Deaths from Injury.	Total Number of Deaths.	Ratio per 1,000 of Mean Force.
First	Marlborough	4	1	5	11·9
	Victoria	3	1	4	6·2
		7	2	9	8·5
Second	Gibraltar	5	3	8	9·3
	Revenge	2	1	3	3·9
		7	4	11	6.7
Third	Mecanee	2	1	3	4·9
Fourth	Orlando	7	15	22	36·6
	Phœbe	3	1	4	7·6
	Liffey	2	3	5	8·7
		12	19	31	18·3
Iron-cased Ships.	Enterprise	—	—	—	—
	Royal Oak	—	2	2	3·3
	Resistance	1	1	2	4·3
		1	3	4	3·6
Sixth	Cossack	—	—	—	—
	Magicienne	—	—	—	—
		—	—	—	—

APPENDIX—MEDITERRANEAN STATION—Table III.—*continued.*

Rate, &c.	NAMES OF SHIPS.	Number of Deaths from Disease.	Number of Deaths from Injury.	Total Number of Deaths.	Ratio per 1,000 of Mean Force
Sloops	Pelican	—	—	—	—
	Chanticleer	2	-	2	10·5
	Trident	2	-	2	36·3
	Racer	-	1	1	7·1
		4	1	5	8·8
Gun Vessels	Surprise	—	—	—	—
	Wanderer	-	1	1	10·
	Weser	—	—	—	—
		—	1	1	3·5
Steam Vessels	Hydra	1	-	1	8·
	Caradoc	—	—	—	—
	Psyche	1	-	1	15·3
	Firefly	—	—	—	—
		2	-	2	5·9
Gun Boat	Cockatrice	—	—	—	—
Receiving Ship.	Hibernia	1	-	1	4·3
TOTAL of all Classes		36	31	67	8·3

APPENDIX—MEDITERRANEAN STATION—*continued.*

TABLE IV.

SHOWING the Number and Nature of fatal Casualties in each Ship.

Rate.	NAME OF SHIP.	Number.	Nature of Injury, &c.
First Rate - -	Marlborough - -	1	Fracture of jaw and thigh, and rupture of liver; fell from aloft.
	Victoria - - -	1	Fracture of frontal bones, &c.
Second Rate -	Gibraltar - -	1	Drowned; fell overboard from a stage.
		2	One fell from aloft, and killed the other.
	Revenge - -	1	Fractures; fell from aloft while furling sails.
Third Rate - -	Meeanee - -	1	Drowned; fell from aloft.
Fourth Rate -	Orlando - - -	1	Rupture of abdominal aorta by fall of an iron bar.
		11	Drowned by the upsetting of the 2d cutter.
		1	Fracture of skull by a marling spike.
		1	Drowned; fell overboard from aloft.
		1	Contusion; fell from aloft.
	Phœbe - - -	1	Fracture of the bones of the face, &c.; fell from aloft.
	Liffey - - -	1	Alcoholic poisoning.
		2	Drowned; fell from a wharf in the dark.
Iron-cased -	Royal Oak - -	1	Fracture of the skull; fell into the hold.
		1	Asphyxia, from falling into the water when drunk.
	Resistance - -	1	Drowned; fell overboard.
Sloop - -	Racer - - -	1	Drowned; supposed to have fallen overboard.
Gun Vessel -	Wanderer - -	1	Concussion of the brain; fell from aloft.
	TOTAL - - -	31	

TABLE V.

SHOWING the Comparative Sickness in different Classes of Ships.

RATES.	Average Complements corrected for Time.	Number of Cases of Disease and Injury.	Ratio per 1,000 of Mean Force.	Number Invalided.	Ratio per 1,000 of Mean Force.	Number of Deaths			Ratio per 1,000 of Mean Force.
						From Disease.	From Injury.	TOTAL.	
First Rates - - -	1,055	1,500	1421·8	44	41·7	7	2	9	8·5
Second Rates - - -	1,625	1,555	956·9	51	31·3	7	4	11	6·7
Third Rates - - -	610	1,006	1649·1	43	70·4	2	1	3	4·9
Fourth Rates - - -	1,690	2,365	1399·3	47	27·8	12	19	31	18·3
Iron-cased Ships - -	1,110	1,501	1352·2	86	77·4	1	3	4	3·6
Sixth Rates - - -	505	1,077	2132·6	13	25·7	–	–	–	—
Sloops - - - -	565	710	1256·6	16	28·3	4	1	5	8·8
Gun Vessels - - -	285	305	1070·1	5	17·5	–	1	1	3·5
Steam Vessels - - -	335	465	1388·	5	14·9	2	–	2	5·9
Gun Boats - - -	35	63	1800·	1	28·5	–	–	–	—
Receiving Ships - -	230	176	765·2	1	4·3	1	–	1	4·3
TOTAL - - -	8,045	10,723	1332·8	312	38·7	36	31	67	8·3

TABLE VI.

SHOWING the Number of Cases of Disease and Injury; the Number Invalided and Dead; with the Ratio per 1,000 of Mean Force, for Seven Years.

YEAR.	Average Complements corrected for Time.	Number of Cases of Disease and Injury.	Ratio per 1,000 of Mean Force.	Number Invalided.	Ratio per 1,000 of Mean Force.	Number of Deaths			Ratio per 1,000 of Mean Force.
						From Disease.	From Injury.	TOTAL.	
1856 - -	11,090	15,153	1366·3	171	15·4	110	32	142	12·8
1857 - -	7,120	9,476	1330·9	208	29·2	53	24	77	10·8
1858 - -	5,390	7,381	1369·4	147	27·3	42	18	60	11·1
1859 - -	11,100	16,792	1512·2	416	37·5	90	35	125	11·2
1860 - -	14,210	20,915	1472·6	988	69·5	105	40	145	10·2
1861 - -	16,600	25,946	1561·2	753	45·4	134	38	172	10·4
1862 - -	9,950	15,423	1550·	350	35·1	70	27	97	9·7
TOTAL - -	75,460	112,086	1485·3	3,033	40·1	604	214	818	10·8
1864–5 -	8,045	10,723	1332·8	312	38·7	36	31	67	8·3

APPENDIX—*continued.*

NORTH AMERICA AND WEST INDIES STATION.

TABLE I.

SHOWING the Average Complements of the different Ships, corrected for Time; the Total Number of Cases of Disease and Injury entered on the Sick List; with the Ratio per 1,000 of Mean Force.

Average Ratio for Seven Years, 1668·5 per 1,000.

Rate, &c.	NAMES OF SHIPS.	Average Complements corrected for Time.	Number of Cases of Disease and Injury.	Ratio per 1,000 of Mean Force.
Second	Duncan	1,000	1,035	1035·
Fourth	Galatea	520	835	1605·7
	Shannon	440	305	693·1
	Phaeton	340	577	1697·
	Liverpool	530	335	632·
		1,830	2,052	1121·3
Sixth	Pylades	265	492	1856·6
	Wolverene	280	366	1307·1
	Cadmus	70	263	3757·1
	Jason	100	165	1650·
	Challenger	170	165	970·5
		885	1,451	1639·5
Sloops	Bulldog	170	357	2100·
	Buzzard	170	244	1435·2
	Styx	185	326	1762·1
	Fawn	175	319	1822·8
	Rosario	130	284	2184·6

APPENDIX—NORTH AMERICA AND WEST INDIES STATION—Table I.—*continued.*

Rate, &c.	NAMES OF SHIPS.	Average Complements corrected for Time.	Number of Cases of Disease and Injury.	Ratio per 1,000 of Mean Force.
Sloops—*continued.*	Royalist	125	147	1176·
	Rinaldo	110	219	1990·9
	Greyhound	60	144	2400·
	Barracouta	85	138	1623·5
	Virago	155	207	1335·4
	Cordelia	115	214	1860·8
	Peterel	125	170	1360·
		1,605	2,769	1725·2
Gun Vessels	Lily	95	238	2505·2
	Cygnet	80	162	2025·
	Steady	60	104	1733·3
	Plover	50	98	1960·
	Nimble	30	84	2800·
		315	686	2177·7
Receiving Ship	Aboukir	210	274	1304·7
Floating Battery (and Dockyard).	Terror	255	319	1250·9
	TOTAL of all Classes	6,100	8,586	1391·7

APPENDIX—NORTH AMERICAN AND WEST INDIES STATION—*continued.*

TABLE II.

SHOWING the Numbers Invalided from each Ship, with the Ratio per 1,000 of Mean Force.

Average Ratio for Seven Years, 29·1 per 1,000.

Rate, &c.	NAMES OF SHIPS.	Number Invalided.	Ratio per 1,000 of Mean Force.
Second Rate - -	Duncan - - - -	19	19·
Fourth Rates -	Galatea - - - -	7	13·4
	Shannon - - -	11	25·
	Phaeton - - -	7	20·5
	Liverpool - - -	7	13·2
		32	17·4
Sixth Rates - -	Pylades - - -	10	37·7
	Wolverene - - -	7	25·
	Cadmus - - -	4	57·1
	Jason - - - -	—	—
	Challenger - - -	3	17·6
		24	27·1
Sloops - - -	Bulldog - - -	13	76·4
	Buzzard - - -	3	17·6
	Styx - - - -	3	16·2
	Fawn - - - -	9	51·4
	Rosario - - -	9	69·2

APPENDIX—NORTH AMERICA AND WEST INDIES —Table II.—*continued.*

Rate, &c.	NAMES OF SHIPS.	Number Invalided.	Ratio per 1,000 of Mean Force.
Sloops—*continued* -	Royalist - - -	2	16·
	Rinaldo - - -	—	—
	Greyhound - - -	3	50·
	Barracouta - - -	2	23·5
	Virago - - - -	1	6·4
	Cordelia - - -	6	52·1
	Peterel - - - -	4	32·
		55	34·2
Gun Vessels - -	Lily - - - -	3	31·9
	Cygnet - - - -	4	50·
	Steady - - - -	4	66·6
	Plover - - - -	—	—
	Nimble - - - -	3	100·
		14	44·4
Receiving Ship -	Aboukir - - -	7	33·3
Floating Battery (and Dockyard).	Terror - - - -	2	7·8
	TOTAL of all Classes - - -	153	25·

APPENDIX—NORTH AMERICAN AND WEST INDIES STATION—*continued.*

TABLE III.

SHOWING the Total Number of Deaths from Disease and Injury in each Ship, with the Ratio of Mortality per 1,000 of Mean Force.

Average Ratio for Seven Years, 25·9 per 1,000.

Rate, &c.	NAMES OF SHIPS.	Number of Deaths from Disease.	Number of Deaths from Injury.	Total Number of Deaths.	Ratio per 1,000 of Mean Force.
Second Rate	Duncan	7	3	10	10·
Fourth Rate	Galatea	5	1	6	11·5
	Shannon	1	2	3	6·8
	Phaeton	2	6	8	23·5
	Liverpool	2	-	2	3·7
		10	9	19	10·3
Sixth Rate	Pylades	2	-	2	7·5
	Wolverene	-	1	1	3 5
	Cadmus	1	-	1	14·2
	Jason	—	—	—	—
	Challenger	2	-	2	11·7
		5	1	6	6·7
Sloops	Bulldog	3	-	3	17·6
	Buzzard	3	-	3	17·6
	Styx	-	1	1	5·4
	Fawn	2	-	2	11·4
	Rosario	1	-	1	7·6

APPENDIX—NORTH AMERICAN AND WEST INDIES STATION—Table III.—*continued.*

Rate, &c.	NAMES OF SHIPS.	Number of Deaths from Disease.	Number of Deaths from Injury.	Total Number of Deaths.	Ratio per 1,000 of Mean Force.
Sloops—*continued.*	Royalist	—	—	—	—
	Rinaldo	2	1	3	27·2
	Greyhound	1	-	1	16·6
	Barracouta	-	1	1	11·7
	Virago	—	—	—	—
	Cordelia	1	-	1	8·6
	Peterel	1	1	2	16·
		14	4	18	11·2
Gun Vessels	Lily	1	-	1	10·5
	Cygnet	—	—	—	—
	Steady	—	—	—	—
	Plover	—	—	—	—
	Nimble	—	—	—	—
		1	-	1	3·1
Receiving Ship.	Aboukir	3	-	3	14·2
Floating Battery (and Dockyard).	Terror	39	1	40	156·8
TOTAL of all Classes		79	18	97	15·9

APPENDIX—NORTH AMERICA AND WEST INDIES STATION—*continued.*

TABLE IV.

SHOWING the Number and Nature of fatal Casualties in each Ship.

Rate, &c.	NAMES OF SHIPS.	Number of Deaths.	Accidents, Injuries, &c.
Second Rate -	Duncan - - -	1	Drowned while getting H. M. S. Vesuvius off a slip at Halifax.
		1	Drowned in the harbour at Halifax.
		1	Fracture of the skull; fell from aloft.
Fourth Rate -	Galatea - - -	1	Suffocated by impaction of food in trachea.
Fourth Rate -	Shannon - - -	2	Drowned; one in attempting to desert, one fell overboard while drawing a bucket of water.
Fourth Rate -	Phaeton - - -	1	Fracture of the skull by the fall of a block from aloft.
		1	Fracture of skull; fell from aloft.
		1	Rupture of lungs, &c.; fell from aloft.
		1	Fracture of the skull; fell from aloft.
		1	Fractures from falling from aloft.
		1	Fractures from falling from aloft.
Sixth Rate -	Wolverene - -	1	Fracture of skull; fell from aloft.
Sloop - -	Styx - - -	1	Suicide. Shot himself with a revolver.
Sloop - -	Peterel - - -	1	Drowned, bathing.
Sloop - -	Rinaldo - - -	1	Fracture of the skull; fell from aloft.
Sloop - -	Barracouta - -	1	Killed by a fall from aloft.
Floating Battery and Dockyard.	Terror - - -	1	Drowned when drunk.
	TOTAL - - -	18	

TABLE V.

SHOWING the Comparative Sickness in the different Classes of Ships.

RATE.	Average Complements corrected for Time.	Number of Cases of Disease and Injury.	Ratio per 1,000 of Mean Force.	Number Invalided.	Ratio per 1,000 of Mean Force.	Number of Deaths			Ratio per 1,000 of Mean Force.
						From Disease.	From Injury.	TOTAL.	
Second Rate - - -	1,000	1,035	1035·	19	19·	7	3	10	10·
Fourth Rate - - -	1,830	2,052	1121·3	32	17·4	10	9	19	10·3
Sixth Rate - - -	885	1,451	1639·5	24	27·1	5	1	6	6·7
Sloops - - - -	1,605	2,769	1725·2	55	34·2	14	4	18	11·2
Gun Vessels - - -	315	686	2177·7	14	44·4	1	–	1	3·1
Receiving Ship - -	210	274	1304·7	7	33·3	3	–	3	14·2
Floating Battery (and Dock-yard).	255	319	1250·9	2	7·8	39	1	40	156·8
TOTAL - - -	6,100	8,586	1391·7	153	25·	79	18	97	15·9

TABLE VI.

SHOWING the Number of Cases of Disease and Injury; the Number Invalided and Dead; with the Ratio per 1,000 of Mean Force for Seven Years.

YEAR.	Average Complements corrected for Time.	Number of Cases of Disease and Injury.	Ratio per 1,000 of Mean Force.	Number Invalided.	Ratio per 1,000 of Mean Force.	Number of Deaths			Ratio per 1,000 of Mean Force.
						From Disease.	From Injury.	TOTAL.	
1856 - -	7,845	12,178	1552·3	184	23·4	177	29	206	26·3
1857 - -	3,640	6,141	1687·1	75	20·6	79	12	91	25·
1858 - -	2,600	5,046	1938·4	81	31·2	39	15	54	20·8
1859 - -	2,780	4,361	1568·7	70	25·2	18	8	26	9·4
1860 - -	2,250	4,011	1782·7	81	36·	87	12	99	44·
1861 - -	4,750	8,452	1779·4	172	36·2	172	28	200	42·1
1862 - -	10,135	16,543	1632·2	328	32·3	170	35	205	20·2
TOTAL - -	34,000	56,732	1668·5	991	29·1	742	139	881	25·9
1864-5 -	6,100	8,586	1391·7	15	25·	79	18	97	15·9

APPENDIX—*continued.*

SOUTH EAST COAST OF AMERICA STATION.

TABLE I.

SHOWING the Average Complements of the different Ships, corrected for Time; the Total Number of Cases of Disease and Injury entered on the Sick List; with the Ratio per 1,000 of Mean Force.

Average Ratio for Seven Years, 1718·4 per 1,000.

Rate, &c.	NAMES OF SHIPS.	Average Complements corrected for Time.	Number of Cases of Disease and Injury.	Ratio per 1,000 of Mean Force.
Third Rate - -	Bombay - - -	230	377	1639·1
Sixth Rate - -	Satellite - - -	240	392	1633·3
Sloops - - -	Stromboli - - -	150	312	2080·
	Curlew - - - -	80	258	3225·
	Alecto - - - -	70	179	2557·1
		300	749	2496·6
Steam Vessels -	Sharpshooter - - -	35	39	1114·2
	Triton - - - -	90	117	1300·
		125	156	1248·
Gun Boats - -	Doterel - - - -	30	68	2266·6
	Sheldrake - - -	35	41	1171·4
	Spider - - - -	10	11	1100·
		75	120	1600·
Receiving Ship -	Egmont - - -	70	154	2200·
	TOTAL of all Classes - - -	1,040	1,948	1873·

APPENDIX—SOUTH EAST COAST of AMERICA STATION—*continued.*

TABLE II.

SHOWING the Numbers Invalided from each Ship, with the Ratio per 1,000 of Mean Force.

Average Ratio for Seven Years, 33·4 per 1,000.

Rate, &c.	NAMES OF SHIPS.	Number Invalided.	Ratio per 1,000 of Mean Force.
Third Rate - -	Bombay - - -	4	17·3
Sixth Rate - -	Satellite - - -	5	20·8
Sloops - - -	Stromboli - - -	4	26·6
	Curlew - - - -	—	—
	Alecto - - - -	2	28·5
		6	20·
Steam Vessels -	Sharpshooter - - -	3	85·7
	Triton - - - -	1	11·1
		4	32·
Gun Boats - -	Doterel - - - -	1	33·3
	Sheldrake - - -	1	28·5
	Spider - - - -	1	100·
		3	40·
Receiving Ship -	Egmont - - - -	6	85·7
	TOTAL of all Classes - - -	28	26·9

APPENDIX—SOUTH EAST COAST OF AMERICA STATION—*continued.*

TABLE III.

SHOWING the Number of Deaths from Disease and Injury in each Ship, with the Ratio of Mortality per 1,000 of Mean Force.

Average Ratio for Seven Years, 18·7 per 1,000.

Rate, &c.	NAMES OF SHIPS.	Number of Deaths from Disease.	Number of Deaths from Injury.	Total Number of Deaths.	Ratio per 1,000 of Mean Force.
Third Rate -	Bombay - - -	- -	94	94	408·6
Sixth Rate -	Satellite - - -	2	2	4	16·6
Sloops -	Stromboli - -	1	- -	1	6·6
	Curlew - - -	—	—	—	—
	Alecto - - -	1	- -	1	14·2
		2	- -	2	6·6
Steam Vessels	Sharpshooter - -	1	- -	1	28·5
	Triton - - -	- -	2	2	22·2
		1	2	3	24·
Gun Boats -	Doterel - - -	- -	1	1	33·3
	Sheldrake - -	—	—	—	—
	Spider - - -	—	—	—	—
		- -	1	1	13·3
Receiving Ship.	Egmont - - -	1	3	4	57·1
TOTAL of all Classes - - -		6	102	108	103·8
	Without Deaths from loss of the Bombay - - -				16·3

APPENDIX—SOUTH-EAST COAST OF AMERICA STATION—*continued.*

TABLE No. IV.

SHOWING the Number and Nature of Fatal Casualties in each Ship.

Rate, &c.	NAMES OF SHIPS.	Number of Deaths.	Nature of Injuries, &c.
Third Rate -	Bombay - -	91	Drowned when the ship was burnt.
		1	Fractures; fell from aloft.
		1	Fracture of cervical vertebra by the above man falling upon him.
		1	Drowned; fell from the accommodation ladder.
Sixth Rate -	Satellite - - -	1	Drowned.
		1	Burnt by accidental ignition of a rocket.
Steam Vessel -	Triton - - -	2	Drowned by the upsetting of second gig when going to assist a wreck.
Gun Boats -	Doterel - - -	1	Fracture of the skull; fell from aloft.
Receiving Ship -	Egmont - - -	3	Drowned by the upsetting of a shore boat.
	TOTAL - - -	102	

TABLE V.

SHOWING the Comparative Sickness in the different Classes of Ships.

RATE, &c.	Average Complements corrected for Time.	Number of Cases of Disease and Injury.	Ratio per 1,000 of Mean Force.	Number Invalided.	Ratio per 1,000 of Mean Force.	Number of Deaths			Ratio per 1,000 of Mean Force.
						From Disease.	From Injury.	Total.	
Third Rates - - -	230	377	1639·1	4	17·3	–	94	94	408·6
Sixth Rates - - -	240	392	1633·3	5	20·8	2	2	4	16·6
Sloops - - - - -	300	749	2496·6	6	20·	2	–	2	6·6
Steam Vessels - - -	125	156	1248·	4	32·	1	2	3	24·
Gunboats - - -	75	120	1600·	3	40·	–	1	1	13·3
Receiving Ship - -	70	154	2200·	6	85·7	1	3	4	57·1
TOTAL - - -	1,040	1,948	1873·	28	26·9	6	102	108	103·8

TABLE VI.

SHOWING the Number of Cases of Disease and Injury; the Number Invalided and Dead; with the Ratio per 1,000 of Mean Force, for Seven Years.

YEAR.	Average Complements corrected for Time.	Number of Cases of Disease and Injury.	Ratio per 1,000 of Mean Force.	Number Invalided.	Ratio per 1,000 of Mean Force.	Number of Deaths			Ratio per 1,000 of Mean Force.
						From Disease.	From Injury.	TOTAL.	
1856 - -	1,200	2,697	2247·5	51	42·5	18	6	24	20·
1857 - -	1,500	2,818	1878·8	44	39·4	24	4	28	18·7
1858 - -	1,270	2,201	1733·1	44	34·6	34	5	39	30·7
1859 - -	1,000	1,690	1690·	35	35·	10	4	14	14·
1860 - -	1,250	1,770	1415·9	30	24·	11	6	17	13·6
1861 - -	1,120	1,563	1395·5	31	27·7	14	4	18	16·1
1862 - -	1,420	2,315	1630·2	58	40·8	13	11	24	16·9
TOTAL - -	8,760	15,054	1718·4	293	33·4	124	40	164	18·7
1864–5 -	1,040	1,948	1873·	28	26·9	6	102	108	103·8*
									16·3

* Without loss of Bombay - - -

APPENDIX—*continued.*

PACIFIC STATION.

TABLE I.

SHOWING the Average Complements of the different Ships, corrected for Time; the Total Number of Cases of Disease and Injury entered on the Sick List; with the Ratio per 1,000 of Mean Force.

Average Ratio for Seven Years, 1523· per 1,000.

Rate, &c.	NAMES OF SHIPS.	Average Complements corrected for Time.	Number of Cases of Disease and Injury.	Ratio per 1,000 of Mean Force.
Fourth Rates -	Sutlej - - - - -	520	600	1153·8
	Leander - - - - -	500	688	1376·
		1,020	1,288	1262·7
Fifth Rate - -	Tribune - - - - -	255	286	1121·5
Sixth Rates - -	Charybdis - - - -	205	482	2351·2
	Clio - - - - -	140	273	1950·
		345	755	2188·4
Sloops - - -	Alert - - - - -	165	205	1242·4
	Columbine - - - -	120	220	1833·3
	Devastation - - - -	120	442	3683·3
	Shearwater - - - -	110	176	1600·
	Cameleon - - - -	150	232	1546·6
		665	1,275	1917·2
Store Ships - -	Naiad - - - - -	15	20	1333·3
	Nereus - - - - -	30	46	1533·3
		45	66	1466·6
	TOTAL - - - -	2,330	3,670	1575·1

APPENDIX—PACIFIC STATION—*continued.*

TABLE II.

SHOWING the Numbers Invalided from each Ship, with the Ratio per 1,000 of Mean Force.

Average Ratio for Seven Years, 31·1 per 1,000.

Rate, &c.	NAMES OF SHIPS.	Number Invalided.	Ratio per 1,000 of Mean Force.
Fourth Rates	Sutlej	14	26·9
	Leander	11	22·
		25	24·5
Fifth Rate	Tribune	5	19·6
Sixth Rates	Charybdis	4	19 5
	Clio	14	100·
		18	52·1
Sloops	Alert	9	54·5
	Columbine	13	108·3
	Devastation	13	108·3
	Shearwater	8	72·7
	Cameleon	11	73·3
		54	81·2
Store Ships	Naiad	—	—
	Nereus	2	66·6
		2	44·4
	TOTAL	104	44·2

APPENDIX—PACIFIC STATION—*continued.*

TABLE III.

SHOWING the Number of Deaths from Disease and Injury in each Ship, with the Ratio of Mortality per 1,000 of Mean Force.

Average Ratio for Seven Years, 9·5 per 1,000.

Rate, &c.	NAMES OF SHIPS.	Number of Deaths from Disease.	Number of Deaths from Injury.	Total Number of Deaths.	Ratio per 1,000 of Mean Force.
Fourth Rates	Sutlej	2	2	4	7·6
	Leander	5	2	7	14·
		7	4	11	10·7
Fifth Rate	Tribune	—	—	—	—
Sixth Rates	Charybdis	-	3	3	14·6
	Clio	1	-	1	7·1
		1	3	4	11·5
Sloops	Alert	—	—	—	—
	Columbine	—	—	—	—
	Devastation	1	-	1	8·3
	Shearwater	2	-	2	18·1
	Cameleon	1	-	1	6·6
		4	-	4	6·
Store Ships	Naiad	—	—	—	—
	Nereus	—	—	—	—
	TOTAL	12	7	19	8·1

TABLE, No. IV.

SHOWING the Number and Nature of Fatal Casualties in each Ship.

Rate, &c.	NAMES OF SHIPS.	Number of Deaths.	Accidents, Injuries, &c.
	Sutlej - - -	1	Drowned by the swamping of a punt in a stream.
		1	Fracture of the skull.
	Leander - - -	1	Drowned; fell overboard.
		1	Fracture of the skull; fell from aloft.
	Charybdis - -	3	Drowned; two fell off the man ropes.
	TOTAL - - -	7	

TABLE V.

SHOWING the Comparative Sickness in the different Classes of Ships.

RATE, &c..	Average Complements corrected for Time.	Number of Cases of Disease and Injury.	Ratio per 1,000 of Mean Force.	Number Invalided.	Ratio per 1,000 of Mean Force.	Number of Deaths.			Ratio per 1,000 of Mean Force.
						From Disease.	From Injury.	TOTAL.	
Fourth Rates - - -	1,020	1,288	1262·7	25	24·5	7	4	11	10·7
Fifth Rates - - -	255	286	1121·5	5	19·6	—	—	—	—
Sixth Rates - - -	345	755	2188·4	18	52·1	1	3	4	11·5
Sloops - - - -	665	1,275	1917·2	54	81·2	4	—	4	6·
Store Ships - - -	45	66	1466·6	2	44·4	—	—	—	—
TOTAL - - -	2,330	3,670	1575·1	104	44·2	12	7	19	8·1

TABLE VI.

SHOWING the Number of Cases of Disease and Injury; the Number Invalided and Dead; with the Ratio per 1,000 of Mean Force for Seven Years.

YEAR.	Average Complements corrected for Time.	Number of Cases of Disease and Injury.	Ratio per 1,000 of Mean Force.	Number Invalided.	Ratio per 1,000 of Mean Force.	Number of Deaths			Ratio per 1,000 of Mean Force.
						From Disease.	From Injury.	TOTAL.	
1856 - -	2,680	4,102	1530·6	78	29·1	18	5	23	8·6
1857 - -	2,170	3,119	1437·3	57	26·3	16	4	20	9·2
1858 - -	2,310	3,199	1380·5	63	27·3	15	4	19	8·2
1859 - -	2,650	4,130	1558·5	71	26·8	26	8	34	12·8
1860 - -	3,490	5,848	1675·6	124	35·5	13	24	37	10·6
1861 - -	2,650	3,966	1496·6	96	36·2	14	7	21	7·9
1862 - -	2,760	4,132	1497·1	94	34·	16	8	24	8·6
TOTAL - -	18,710	28,496	1523·	583	31·1	118	60	178	9·5
1864–65 -	2,330	3,670	1575·1	104	44·2	12	7	19	8·1

APPENDIX—*continued.*

WEST COAST OF AFRICA STATION.

TABLE I.

SHOWING the Average Complements of the different Ships, corrected for Time; the Total Number of Cases of Disease and Injury entered on the Sick List; with the Ratio per 1,000 of Mean Force.

Average Ratio for Seven Years, 1928·9 per 1,000.

Rate, &c.	NAMES OF SHIPS.	Average Complements corrected for Time.	Number of Cases of Disease and Injury.	Ratio per 1,000 of Mean Force.
Sixth Rates	Archer	165	499	3024·2
	Rattlesnake	200	290	1450·
		365	789	2161·6
Gun Vessels	Dart	80	192	2400·
	Espoir	40	75	1875·
	Griffon	35	95	2714·2
	Jaseur	75	184	2453·5
	Landrail	20	34	1700·
	Lee	65	202	3107·6
	Mullet	80	160	2000·
	Pandora	80	133	1662·5
	Ranger	75	111	1480·
	Snipe	65	126	1938·4
	Speedwell	55	234	4254·5
	Sparrow	60	165	2750·
		730	1,711	2343·8
Steam Vessels	Antelope	70	195	2785·6
	Investigator	30	203	6766·6
		100	398	3980·

APPENDIX—WEST COAST OF AFRICA STATION—Table I—*continued.*

Rate, &c.	NAMES OF SHIPS.	Average Complements corrected for Time.	Number of Cases of Disease and Injury.	Ratio per 1,000 of Mean Force.
Sloop	Zebra	160	260	1625·
Store Ships	Mæander	130	108	830·7
	Wye	60	63	1050·
		190	171	900·
Gunboat	Handy	10	29	2900·
Receiving Ships	Isis	30	41	1366·6
	Vindictive	35	77	2200·
		65	118	1815·3
	TOTAL of all Classes	1,620	3,476	2145·6

APPENDIX—WEST COAST OF AFRICA STATION—*continued.*

TABLE II.

SHOWING the Numbers Invalided from each Ship, with the Ratio per 1,000 of Mean Force.

Average Rate for Seven Years, 45·5 per 1,000.

Rate, &c.	NAMES OF SHIPS.	Number Invalided.	Ratio per 1,000 of Mean Force.
Sixth Rates - -	Archer - - - -	10	60·6
	Rattlesnake - - -	10	50·
		20	54·7
Gun Vessels - -	Dart - - - -	9	112·5
	Espoir - - - -	2	50·
	Griffon - - - -	3	85·7
	Jaseur - - - -	2	26·6
	Landrail - - -	—	—
	Lee - - - -	1	15·3
	Mullet - - - -	1	12·5
	Pandora - - -	1	12·5
	Ranger - - - -	7	93·3
	Snipe - - - -	2	30·7
	Speedwell - - -	6	109·
	Sparrow - - -	4	66·6
		38	52·
Steam Vessels -	Antelope - - -	4	57·1
	Investigator - - -	26	866·6
		30	300·

APPENDIX—WEST COAST OF AFRICA STATION—Table II—*continued.*

Rate, &c.	NAMES OF SHIPS.	Number Invalided.	Ratio per 1,000 of Mean Force.
Sloop - - -	Zebra - - - - -	2	12·5
Store Ships - -	Mæander - - - -	15	115·3
	Wye - - - - -	—	—
		15	78·9
Gunboat - - -	Handy - - - - -	—	—
Receiving Ships -	Isis - - - - -	7	233·3
	Vindictive - - - -	3	85·7
		10	153·8
	TOTAL of all Classes - - -	115	70·9

APPENDIX—WEST COAST OF AFRICA STATION—*continued.*

TABLE III.

SHOWING the Number of Deaths from Disease and Injury in each Ship, with the Ratio of Mortality per 1,000 of Mean Force.

Average Ratio for Seven Years, 27·5 per 1,000.

Rate, &c.	NAMES OF SHIPS.	Number of Deaths from Disease.	Number of Deaths from Injury.	Total Number of Deaths.	Ratio per 1,000 of Mean Force.
Sixth Rates	Archer	1	3	4	24·2
	Rattlesnake	3	-	3	15·
		4	3	7	19·1
Gun Vessels	Dart	-	2	2	25·
	Espoir	-	4	4	100·
	Griffon	—	—	—	—
	Jaseur	3	-	3	40·
	Landrail	—	—	—	—
	Lee	—	—	—	—
	Mullet	—	—	—	—
	Pandora	1	-	1	12·5
	Ranger	-	4	4	53·3
	Snipe	1	1	2	30·7
	Speedwell	2	-	2	36·3
	Sparrow	1	-	1	16·6
		8	11	19	26·
Steam Vessels	Antelope	1	-	1	14·2
	Investigator	4	-	4	133·3
		5	-	5	50·

APPENDIX—WEST COAST OF AFRICA STATION—Table III—*continued.*

Rate, &c.	NAMES OF SHIPS.	Number of Deaths from Disease.	Number of Deaths from Injury.	Total Number of Deaths.	Ratio per 1,000 of Mean Force.
Sloop - -	Zebra - - -	8	1	9	56·2
Store Ships -	Mæander - -	4	- -	4	30·7
	Wye - - -	—	—	—	—
		4	- -	4	21·
Gunboat -	Handy - - -	2	- -	2	200·
Receiving Ships.	Isis - - -	—	—	—	—
	Vindictive - -	—	—	—	—
		—	—	—	—
TOTAL of all Classes - - -		31	15	46	28 3

APPENDIX—WEST COAST OF AFRICA STATION—*continued.*

TABLE IV.

SHOWING the Number and Nature of Fatal Casualties in each Ship.

Rate, &c.	NAMES OF SHIPS.	Number of Deaths.	Accidents, Injuries, &c.
Sixth Rate - -	Archer - - -	1	Drowned; upset in a canoe when drunk.
		1	Fracture of the skull; fell from the deck when drunk.
		1	Gunshot wound of the head in action.
Gun Vessels -	Dart - - -	2	Drowned; capsized in a surf boat.
	Espoir - - -	4	Drowned; capsized in a boat.
	Ranger - - -	4	Drowned; one upset in a boat, one washed out of a boat, one fell out of a boat, one fell overboard while asleep.
	Snipe - - -	1	A Krooman; killed by a fall on shore.
Sloop - -	Zebra - - -	1	Drowned in attempting to swim off to the ship.
	TOTAL - - -	15	

CALIFORNIA MAIL

TABLE V.

SHOWING the Comparative Sickness in different Classes of Ships.

RATE, &c.	Average Complements corrected for Time.	Number of Cases of Disease and Injury.	Ratio per 1,000 of Mean Force.	Number Invalided.	Ratio per 1,000 of Mean Force.	Number of Deaths			Ratio per 1,000 of Mean Force.
						From Disease.	From Injury.	TOTAL.	
Sixth Rates - - -	365	789	2161·6	20	54·7	4	3	7	19·1
Gun Vessels - - -	730	1,711	2343·8	38	52·	8	11	19	26·
Steam Vessels - - -	100	398	3980·	30	300·	5	- -	5	50·
Sloops - - - -	160	260	1625·	2	12·5	8	1	9	56·2
Store Ships - - -	190	171	900·	15	78·9	4	- -	4	21·
Gun Boat - - -	10	29	2900·	- -	- -	2	- -	2	200·
Receiving Ships - -	65	118	1815·3	10	153·8	—	—	—	—
TOTAL - - -	1,620	3,476	2145·6	115	70·9	31	15	46	28·3

Table VI.

Showing the Number of Cases of Disease and Injury; the Number Invalided and Dead; with the Ratio per 1,000 of Mean Force for Seven Years.

YEAR.	Average Complements corrected for Time.	Number of Cases of Disease and Injury.	Ratio per 1,000 of Mean Force.	Number Invalided.	Ratio per 1,000 of Mean Force.	Number of Deaths			Ratio per 1,000 of Mean Force.
						From Disease.	From Injury.	Total.	
1856 - -	1,630	3,060	1877·3	74	45·4	20	10	30	18·4
1857 - -	1,620	3,497	2158·6	71	43·8	27	9	36	22·2
1858 - -	1,870	3,964	2119·8	105	56·1	26	13	39	20·8
1859 - -	1,590	3,289	2068·5	131	82·4	84	6	90	56·6
1860 - -	1,845	3,289	1807·1	73	40·1	32	8	40	22·
1861 - -	2,050	3,839	1872·7	78	38·	43	27	70	34·1
1862 - -	2,190	3,743	1709·1	51	23·2	36	12	48	21·9
Total - -	12,795	24,681	1928·9	583	45·5	268	85	353	27·5
1864–5 -	1,620	3,476	2145·6	115	70·9	31	15	46	28·3

APPENDIX—*continued.*

CAPE OF GOOD HOPE STATION.

TABLE I.

SHOWING the Average Complements of the different Ships, corrected for Time; the Total Number of Cases of Disease and Injury entered on the Sick List; with the Ratio per 1,000 of Mean Force.

Average Ratio for Seven Years, 1652·1 per 1,000.

Rate, &c.	NAMES OF SHIPS.	Average Complements corrected for Time.	Number of Cases of Disease and Injury.	Ratio per 1,000 of Mean Force.
Second Rate	Princess Royal	780	658	843·5
Fourth Rate	Severn	125	109	872·
Sixth Rates	Highflyer	60	99	1650·
	Orestes	270	697	2581·4
	Valorous	200	364	1820·
	Wasp	185	285	1540·5
		715	1,445	2020·9
Sloops	Ariel	40	74	1850·
	Pantaloon	135	139	1029·6
	Rapid	115	213	1852·1
	Lyra	100	234	2340·
		390	660	1692·3
Gun Vessels	Penguin	50	127	2540·
	Vigilant	45	59	1311·1
		95	186	1957·8
Receiving Ship	Seringapatam	95	165	1736·8
	TOTAL of all Classes	2,200	3,223	1465·

APPENDIX—CAPE OF GOOD HOPE STATION—*continued.*

TABLE II.

SHOWING the Numbers Invalided from each Ship, with the Ratio per 1,000 of Mean Force.

Average Ratio for Seven Years, 32·2 per 1,000.

Rate, &c.	NAMES OF SHIPS.	Number Invalided.	Ratio per 1,000 of Mean Force.
Second Rate - -	Princess Royal - -	23	29·4
Fourth Rate - -	Severn - - - -	11	88·
Sixth Rates - -	Highflyer - - -	4	66·6
	Orestes - - - -	7	25·9
	Valorous - - -	11	55·
	Wasp - - - -	8	43·2
		30	41·9
Sloops - - -	Ariel - - - -	1	25·
	Pantaloon - - -	1	7·3
	Rapid - - - -	4	34·7
	Lyra - - - -	3	30·
		9	23·
Gun Vessels - -	Penguin - - -	2	40·
	Vigilant - - -	5	111·1
		7	73·6
Receiving Ship -	Seringapatam - - -	2	21·
	TOTAL of all Classes - - -	82	37·2

APPENDIX—CAPE OF GOOD HOPE STATION—*continued.*

TABLE III.

SHOWING the Number of Deaths from Disease and Injury in each Ship, with the Ratio of Mortality per 1,000 of Mean Force.

Average Ratio for Seven Years, 15·9 per 1,000.

Rate, &c.	NAMES OF SHIPS.	Number of Deaths from Disease.	Number of Deaths from Injury.	Total Number of Deaths.	Ratio per 1,000 of Mean Force
Second Rate	Princess Royal -	14	2	16	20·5
Fourth Rate	Severn - - -	—	—	—	—
Sixth Rates -	Highflyer - -	1	- -	1	16·6
	Orestes - - -	2	2	4	14·8
	Valorous - - -	—	—	—	—
	Wasp - - -	2	2	4	21·6
		5	4	9	12·5
Sloops -	Ariel - - -	1	- -	1	25·
	Pantaloon - -	1	3	4	29·6
	Rapid - - -	5	- -	5	43·4
	Lyra - - -	- -	3	3	30·
		7	6	13	33·3
Gun Vessels	Penguin - - -	2	1	3	60·
	Vigilant - - -	2	1	3	66·6
		4	2	6	63·1
Receiving Ship.	Seringapatam - -	—	—	—	—
TOTAL of all Classes - - -		30	14	44	20·

APPENDIX—CAPE OF GOOD HOPE STATION—*continued.*

TABLE IV.

SHOWING the Number and Nature of Fatal Casualties in each Ship.

Rate, &c.	NAMES OF SHIPS.	Number of Deaths.	Accidents, Injuries, &c.
Second Rate -	Princess Royal -	1	Fracture of the femur; death by gangrene; fell from aloft.
		1	Drowned; fell overboard.
Sixth Rate - -	Orestes - - -	1	Drowned in a gale, supposed to have been washed from the head.
		1	Drowned when swimming to the ship.
Sixth Rate - -	Wasp - - -	1	Killed by spear wound by a native.
		1	Drowned; fell overboard in a fit.
Sloop - -	Pantaloon - -	1	Fracture of skull; fell from aloft.
		1	Drowned; fell off ship's side.
		1	Rupture of aorta; fell from a verandah.
„ - -	Lyra - - -	2	Killed in action with natives.
		1	Drowned; fell overboard.
Gun Vessel -	Penguin - -	1	Drowned; fell from ship's side, stage giving way.
	Vigilant - - -	1	Drowned; upset in a surf boat.
	TOTAL - - -	14	

TABLE V.

SHOWING the Comparative Sickness in the different Classes of Ships.

RATES, &c.	Average Complements corrected for Time.	Number of Cases of Disease and Injury.	Ratio per 1,000 of Mean Force.	Number Invalided.	Ratio per 1,000 of Mean Force.	Number of Deaths			Ratio per 1,000 of Mean Force.
						From Disease.	From Injury.	TOTAL.	
Second Rates - - -	780	658	843·5	23	29·4	14	2	16	20·5
Fourth Rates - - -	125	109	872·	11	88·	—	—	—	—
Sixth Rates - - -	715	1,445	2020·9	30	41·9	5	4	9	12·5
Sloops - - - -	390	660	1692·3	9	23·	7	6	13	33·3
Gun Vessels - - -	95	186	1957·8	7	73·6	4	2	6	63·1
Receiving Ship - -	95	165	1736·8	2	21·	—	—	—	—
TOTAL - - -	2,200	3,223	1465·	82	37·2	30	14	44	20·

TABLE VI.

SHOWING the Number of Cases of Disease and Injury; the Number Invalided and Dead; with the Ratio per 1,000 of Mean Force for Seven Years.

YEAR.	Average Complements corrected for Time.	Number of Cases of Disease and Injury.	Ratio per 1,000 of Mean Force.	Number Invalided.	Ratio per 1,000 of Mean Force.	Number of Deaths			Ratio per 1,000 of Mean Force.
						From Disease.	From Injury.	TOTAL.	
1856 - -	890	1,041	1170·9	36	40·5	7	10	17	19·1
1857 - -	1,060	1,366	1218·3	46	43·3	14	1	15	14·1
1858 - -	1,140	1,739	1525·5	29	25·4	12	6	18	15·8
1859 - -	1,160	1,539	1326·7	29	25·	8	4	12	10·3
1860 - -	1,570	2,199	1400·	49	31·3	11	7	18	11·4
1861 - -	1,880	3,797	2019·6	59	31·3	25	9	34	18·1
1862 - -	1,180	2,990	2533·8	38	32·2	5	23	28	23·7
TOTAL - -	8,880	14,671	1652·1	286	32·2	82	60	142	15·9
1864–5 -	2,200	3,223	1465·	82	37·2	30	14	44	20·

APPENDIX—*continued.*

CHINA STATION.

TABLE I.

SHOWING the Average Complements of the different Ships, corrected for Time; the Total Number of Cases of Disease and Injury entered on the Sick List; with the Ratio per 1,000 of Mean Force.

Average Ratio for Seven Years, 2266·5 per 1,000.

Rate, &c.	NAMES OF SHIPS.	Average Complements corrected for Time.	Number of Cases of Disease and Injury.	Ratio per 1,000 of Mean Force.
Second Rate	Conqueror	400	922	2305·
Fourth Rates	Euryalus	520	564	1084·6
	Severn	375	480	1280·
		895	1,044	1166·4
Fifth Rate	Leopard	285	285	1000·
Sixth Rates	Barrosa	290	472	1627·5
	Scylla	260	372	1430·7
	Pelorus	260	379	1457·6
	Tartar	265	367	1384·9
		1,075	1,590	1479·
Sloops	Rattler	160	361	2256·2
	Argus	155	294	1896·7
	Perseus	170	274	1611·7
	Swallow and Dove	120	160	1333·3
		605	1,089	1800·

APPENDIX—CHINA STATION—Table I.—*continued.*

Rate, &c.	NAMES OF SHIPS.	Average Complements corrected for Time.	Number of Cases of Disease and Injury.	Ratio per 1,000 of Mean Force.
Gun Vessels	Ringdove	35	86	1457·1
	Coquette	85	310	3647·
	Cormorant	90	224	2488·8
	Osprey	85	186	2188·2
	Slaney	50	154	3080·
	Algerine	50	116	2320·
	Leven	20	104	5200·
		415	1,180	2843·3
Steam Vessels	Manilla	50	82	1640·
	Coromandel	25	44	1760·
		75	126	1680·
Troop Ship	Adventure	250	670	2680·
Store Ship	Hesper	15	35	2333·3
Receiving Ship	Princess Charlotte	250	163	652·
Hospital Ship	Acorn	30	136	4533·3
	Seven Gunboats	210	480	2285·7
Surveying Vessel	Rifleman	90	189	2100·
	Marine Brigade	485	889	1832·9
	TOTAL of all Classes	5,080	8,798	1731·8

APPENDIX—CHINA STATION—*continued.*

TABLE II.

SHOWING the Numbers Invalided from each Ship, with the Ratio per 1,000 of Mean Force.

Average Ratio for Seven Years, 66· per 1,000.

Rate, &c.	NAMES OF SHIPS.	Number Invalided.	Ratio per 1,000 of Mean Force.
Second Rate	Conqueror	45	112·5
Fourth Rates	Euryalus	32	61·5
	Severn	35	93·3
		67	74·8
Fifth Rate	Leopard	9	31·5
Sixth Rates	Barrosa	12	41·3
	Scylla	15	57·6
	Pelorus	12	46·1
	Tartar	—	—
		39	36·2
Sloops	Rattler	7	43·7
	Argus	9	58·
	Perseus	16	94·1
	Swallow and Dove	3	25·
		35	57·8
Gun Vessels	Ringdove	3	85·7
	Coquette	10	117·6
	Cormorant	8	88·8
	Osprey	7	82·3
	Slaney	1	20·
	Algerine	4	80·
	Leven	4	200·
		37	89·1

APPENDIX—CHINA STATION—TABLE II.—*continued.*

Rate, &c.	NAMES OF SHIPS.	Number Invalided.	Ratio per 1,000 of Mean Force.
Steam Vessels -	Manilla - - -	—	—
	Coromandel - - -	3	120·
		3	40·
Troop Ship - -	Adventure - - -	11	44·
Store Ship - -	Hesper - - -	4	266·6
Receiving Ship -	Princess Charlotte - -	7	28·
Hospital Ship -	Acorn - - - -	—	—
	Seven Gunboats - -	29	138·
Surveying Vessel -	Rifleman - - -	6	66·6
	Marine Brigade - -	41	84·5
	TOTAL of all Classes - - -	333	65·5

APPENDIX—CHINA STATION—*continued.*

TABLE III.

SHOWING the Number of Deaths from Disease and Injury in each Ship, with the Ratio of Mortality per 1,000 of Mean Force.

Average Ratio for Seven Years, 45·4 per 1,000.

Rate, &c.	NAMES OF SHIPS.	Number of Deaths from Disease.	Number of Deaths from Injury.	Total Number of Deaths.	Ratio per 1,000 of Mean Force.
Second Rate	Conqueror	19	3	22	55·
Fourth Rates	Euryalus	2	8	10	19·2
	Severn	2	2	4	10·6
		4	10	14	15·6
Fifth Rate	Leopard	2	1	3	10·5
Sixth Rates	Barrosa	5	-	5	17·2
	Scylla	-	2	2	7·6
	Pelorus	2	1	3	11·5
	Tartar	-	3	3	11·3
		7	6	13	12·
Sloops	Rattler	2	2	4	25·
	Argus	3	1	4	25·8
	Perseus	7	-	7	41·1
	Swallow and Dove	1	-	1	8·3
		13	3	16	26·4
Gun Vessels	Ringdove	-	1	1	28·5
	Coquette	4	-	4	47·
	Cormorant	1	1	2	22·2
	Osprey	3	1	4	47·
	Slaney	1	-	1	20·
	Algerine	2	-	2	40·
	Leven	4	-	4	200·
		15	3	18	43·3

APPENDIX—CHINA STATION—TABLE III.—*continued.*

Rate, &c.	NAMES OF SHIPS.	Number of Deaths from Disease	Number of Deaths from Injury.	Total Number of Deaths.	Ratio per 1,000 of Mean Force.
Steam Vessels	Manilla	—	—	—	—
	Coromandel	-	1	1	40·
		—	1	1	13·3
Troop Ship	Adventure	3	3	6	24·
Store Ship	Hesper	4	-	4	266·6
Receiving Ship.	Princess Charlotte	2	-	2	8·
Hospital Ship	Acorn	1	-	1	33·3
	Seven Gunboats	13	8	21	100·
Surveying Vessel.	Rifleman	-	1	1	11·1
	Marine Brigade	21	3	24	49·4
TOTAL of all Classes		104	42	146	28·7

APPENDIX—CHINA STATION—*continued.*

TABLE IV.

SHOWING the Number and Nature of Fatal Casualties in each Ship.

Rate, &c.	NAMES OF SHIPS.	Number of Deaths.	Accidents, Injuries, &c.
Second Rate -	Conqueror - -	2	Killed in action.
		1	Drowned; fell from aloft.
Fourth Rates -	Euryalus - -	1	Fracture of skull; fell from aloft.
		1	Drowned; capsized in a shore boat.
		5	Wounds received in action.
		1	Fracture of the spine; a man fell from aloft upon him.
	Severn - - -	2	Drowned by falling overboard.
Fifth Rate -	Leopard - - -	1	Wound in action.
Sixth Rates -	Scylla - - -	1	Alcoholic poisoning.
		1	Drowned; fell from the ships' side.
	Pelorus - - -	1	Fracture of skull by fall of top gallant mast.
	Tartar - - -	1	Wound received in action.
		1	Drowned by the swamping of a boat.
		1	Compound fracture of leg, through fall of a block.
Troop Ship -	Adventure - -	3	One found drowned in Hong Kong Harbour; two fell overboard.
Sloops - -	Rattler - - -	1	Drowned; fell from a boat alongside.
		1	Concussion of the spine; fell out of his hammock.
	Argus - - -	1	Rupture of the bladder; fell down hatchway.
Gun Vessels -	Ringdove - -	1	Drowned; fell overboard.
	Cormorant - -	1	Fracture of the skull.
	Osprey - - -	1	Drowned; fell overboard when drunk.
Steam Vessel -	Coromandel - -	1	Asphyxiated by fumes from a charcoal stove.
	Marine Brigade -	3	Killed in action.
	Gun Boats - -	2	Drowned; one while bathing on shore.
		6	Drowned; upset in a boat.
Surveying Vessel	Rifleman - -	1	Rolled overboard while asleep.
	TOTAL - - -	42	

TABLE V.

SHOWING the Comparative Sickness in the different Classes of Ships.

RATE, &c.	Average Complements corrected for Time.	Number of Cases of Disease and Injury.	Ratio per 1,000 of Mean Force.	Number Invalided.	Ratio per 1,000 of Mean Force.	Number of Deaths			Ratio per 1,000 of Mean Force.
						From Disease.	From Injury.	TOTAL.	
Second Rates - - -	400	922	2305·	45	112·5	19	3	22	55·
Fourth Rates - - -	895	1,044	1166·4	67	74·8	4	10	14	15·6
Fifth Rates - - -	285	285	1000·	9	31·5	2	1	3	10·5
Sixth Rates - - -	1,075	1,590	1479·	39	33 2	7	6	13	12·
Troop Ship - - -	250	670	2680·	11	44·	3	3	6	24·
Sloops - - - -	605	1,089	1800·	35	57·8	13	3	16	26·4
Gun Vessels - - -	415	1,180	2843·3	37	89·1	15	3	18	43·3
Steam Vessels - - -	75	126	1680·	3	40·	- -	1	1	13·3
Store Ship - - -	15	35	2333·3	4	266·6	4	- -	4	266·6
Receiving Ship - -	250	163	652·	7	28·	2	- -	2	8·
Hospital Ship - - -	30	136	4533·3	- -	- -	1	- -	1	33·3
Gunboats - - -	210	480	2285·7	29	138·	13	8	21	100·
Surveying Vessel - -	90	189	2100·	6	66·6	- -	1	1	11·1
Marine Brigade - -	485	889	1832·9	41	84·5	21	3	24	49·4
TOTAL - - -	5,080	8,798	1731·8	333	65·5	104	42	146	28·7

TABLE VI.

SHOWING the Number of Cases of Disease and Injury; the Number Invalided and Dead; with the Ratio per 1,000 of Mean Force for Seven Years.

YEAR.	Average Complements corrected for Time.	Number of Cases of Disease and Injury.	Ratio per 1,000 of Mean Force.	Number Invalided.	Ratio per 1,000 of Mean Force.	Number of Deaths			Ratio per 1,000 of Mean Force.
						From Disease.	From Injury.	TOTAL.	
1856 - -	3,410	6,587	1931·7	71	20·8	92	24	116	34·
1857 - -	7,080	17,595	2485·2	378	53·4	243	85	328	46·2
1858 - -	11,300	29,990	2653·9	915	80·9	586	120	706	62·5
1859 - -	6,600	15,756	2387·9	555	84·1	206	116	322	48·8
1860 - -	8,540	15,501	1815·1	615	72·	214	30	244	28·6
1861 - -	5,860	11,543	1967·9	361	61·6	128	25	153	26·1
1862 - -	3,570	8,107	2270·7	167	46·7	204	33	237	66·3
TOTAL - -	46,360	105,079	2266·5	3,062	66·	1,673	433	2,106	45·4
1864–5 -	5,080	8,798	1731·8	333	65·5	104	42	146	28·7

APPENDIX—*continued.*

AUSTRALIAN STATION.

TABLE I.

SHOWING the Average Complements of the different Ships, corrected for Time; the Total Number of Cases of Disease and Injury entered on the Sick List; with the Ratio per 1,000 of Mean Force.

Average Ratio for Seven Years, 1315·1 per 1,000.

Rate, &c.	NAMES OF SHIPS.	Average Complements corrected for Time.	Number of Cases of Disease and Injury.	Ratio per 1,000 of Mean Force.
Fifth Rate - -	Curaçoa - - -	345	356	1031·8
Sixth Rates - -	Brisk - - - -	100	139	1390·
	Esk - - - -	240	331	1379·1
	Miranda - - -	170	110	647·
		510	580	1137·2
Sloops - - -	Falcon - - - -	165	313	1896·9
	Harrier - - - -	100	133	1330·
	Salamander - - -	110	115	1045·4
		375	561	1496·
Gun Vessel - -	Eclipse - - - -	80	182	2275·
	TOTAL of all Classes - - -	1,310	1,679	1281·6

APPENDIX—AUSTRALIAN STATION—*continued.*

TABLE II.

SHOWING the Numbers Invalided from each Ship, with the Ratio per 1,000 of Mean Force.

Average Ratio for Seven Years, 29·8 per 1,000.

Rate, &c.	NAMES OF SHIPS.	Number Invalided.	Ratio per 1,000 of Mean Force.
Fifth Rate - -	Curaçoa - - -	8	23·1
Sixth Rates - -	Brisk - - - -	3	30·
	Esk - - - -	8	33·3
	Miranda - - -	3	17·6
		14	27·4
Sloops - -	Falcon - - - -	6	36·3
	Harrier - - -	—	—
	Salamander - - -	2	18·1
		8	21·3
Gun Vessel - -	Eclipse - - - -	5	62·5
	TOTAL of all Classes - - -	35	26·7

APPENDIX—AUSTRALIAN STATION—*continued.*

TABLE III.

SHOWING the Number of Deaths from Disease and Injury in each Ship, with the Ratio of Mortality per 1,000 of Mean Force.

Average Ratio for Seven Years, 12·6 per 1,000.

Rate, &c.	NAMES OF SHIPS.	Number of Deaths from Disease.	Number of Deaths from Injury.	Total Number of Deaths.	Ratio per 1,000 of Mean Force.
Fifth Rate -	Curaçoa - - -	2	- -	2	5·7
Sixth Rates-	Brisk - - -	- -	1	1	10·
	Esk - - -	3	1	4	16·6
	Miranda - - -	- -	1	1	5·8
		3	3	6	11·7
Sloops -	Falcon - - -	1	- -	1	6·
	Harrier - - -	2	4	6	60·
	Salamander - -	—	—	—	—
		3	4	7	18·6
Gun Vessel -	Eclipse - - -	—	—	—	—
TOTAL of all Classes - - -		8	7	15	11·4

APPENDIX—AUSTRALIAN STATION—*continued.*

TABLE IV.

SHOWING the Number and Nature of Fatal Casualties in each Ship.

Rate, &c.	NAMES OF SHIPS.	Number of Deaths.	Accidents, Injuries, &c.
Sixth Rates -	Brisk - - -	1	Drowned; fell overboard.
	Esk - - -	1	Drowned; fell overboard.
	Miranda - - -	1	Fracture of the skull; fell from aloft.
Sloop - -	Harrier - - -	1	Suicide with opium.
		2	Drowned; one fell out of cutter while being lowered, one fell through the head gratings.
		1	Missed on the Falkland Islands
	TOTAL - - -	7	

TABLE V.

SHOWING the Comparative Sickness in the different Classes of Ships.

RATE, &c.	Average Complements corrected for Time.	Number of Cases of Disease and Injury.	Ratio per 1,000 of Mean Force.	Number Invalided.	Ratio per 1,000 of Mean Force.	Number of Deaths			Ratio per 1,000 of Mean Force.
						From Disease.	From Injury.	TOTAL.	
Fifth Rate - - -	345	356	1031·8	8	23·1	2	- -	2	5·7
Sixth Rates - - -	510	580	1137·2	14	27·4	3	3	6	11·7
Sloops - - - -	375	561	1496·	8	21·3	3	4	7	18·6
Gun Vessel - - -	80	182	2275·	5	62·5	—	—	—	—
TOTAL - - -	1,310	1,679	1281·6	35	26·7	8	7	15	11·4

TABLE VI.

SHOWING the Number of Cases of Disease and Injury; the Number Invalided and Dead; with the Ratio per 1,000 of Mean Force for Seven Years.

YEAR.	Average Complements corrected for Time.	Number of Cases of Disease and Injury.	Ratio per 1,000 of Mean Force.	Number Invalided.	Ratio per 1,000 of Mean Force.	Number of Deaths			Ratio per 1,000 of Mean Force.
						From Disease.	From Injury.	TOTAL.	
1856 - -	540	771	1427·8	37	68·5	3	6	9	16·6
1857 - -	390	546	1400·	10	25·6	1	1	2	5·1
1858 - -	380	520	1368·5	9	23·7	1	2	3	7·9
1859 - -	585	800	1367·4	24	41·	9	2	11	18·8
1860 - -	940	1,186	1261·7	22	23·4	5	8	13	13·8
1861 - -	945	1,249	1322·8	27	28·4	8	5	13	13·7
1862 - -	945	1,122	1187·3	12	12·6	4	5	9	9·5
TOTAL - -	4,725	6,214	1315·1	141	29·8	31	29	60	12·6
1864-5 -	1,310	1,679	1281·6	35	26·7	8	7	15	11·4

APPENDIX—*continued.*

IRREGULAR FORCE.

TABLE I.

SHOWING the Average Complements of the different Ships, corrected for Time; the Total Number of Cases of Disease and Injury entered on the Sick List; with the Ratio per 1,000 of Mean Force.

Average Ratio for Seven Years, 1547· per 1,000.

Rate, &c.	NAMES OF SHIPS.	Average Complements corrected for Time.	Number of Cases of Disease and Injury.	Ratio per 1,000 of Mean Force.
Iron Clad	Caledonia	80	90	1125·
Fourth Rates	Arethusa	15	16	1066·6
	Constance	15	19	1266·6
	Forte	80	140	1750·
	Narcissus	150	317	2113·3
	Octavia	20	27	1350·
	Bacchante	40	51	1275·
		320	570	1781·2
Fifth Rate	Terrible	50	83	1660·
Sixth Rates	Brisk	80	174	2175·
	Clio	150	323	2153·3
	Encounter	20	8	400·
	Gladiator	200	331	1655·
	Highflyer	65	120	1846·1
	Niger	45	139	3088·8
	Racoon	280	263	939·2
	Scout	20	48	2400·
		860	1,406	1634·8
Sloops	Harrier	30	48	1600·
	Hornet	30	70	2333·3
	Mutine	45	71	1577·7
	Sphinx	30	58	1933·3
		135	247	1829·6

APPENDIX—IRREGULAR FORCE—Table I.—*continued.*

Rate, &c.	NAMES OF SHIPS.	Average Complements corrected for Time.	Number of Cases of Disease and Injury.	Ratio per 1,000 of Mean Force.
Gun Vessels	Assurance	85	165	1941·1
	Landrail	10	26	2600·
	Philomel	10	24	2400·
	Sparrowhawk	20	49	2450·
	Serpent	15	28	1866·6
	Torch	20	72	3600·
		160	364	2275·
Gunboat	Gleaner	10	19	1900·
Training Ship	Martin	65	52	800·
Yacht	Enchantress	30	28	933·3
Troop Ships	Himalaya	195	315	1615·3
	Orontes	200	306	1530·
	Tamar	190	354	1863·1
	Urgent	140	283	2021·4
	Vulcan	60	184	3066·6
		785	1,442	1836·9
Store Ships	Megæra	55	97	1763·6
	Supply	55	72	1309·
		110	169	1536·3
Marine Detachments	Marines, San Juan	45	30	666·6
	„ Falkland Islands	20	17	850·
	„ Somerset	20	39	1950·
		85	86	1011·7
TOTAL of all Classes		2,690	4,556	1693·6

APPENDIX—IRREGULAR FORCE—*continued.*

TABLE II.

SHOWING the Numbers Invalided from each Ship, with the Ratio per 1,000 of Mean Force.

Average Ratio for Seven Years, 23·9 per 1,000.

Rate, &c.	NAMES OF SHIPS,	Number Invalided.	Ratio per 1,000 of Mean Force.
Iron Clad	Caledonia	—	—
Fourth Rates	Arethusa	—	—
	Constance	—	—
	Forte	2	25·
	Narcissus	1	66·6
	Octavia	—	—
	Bacchante	7	175·
		10	31·2
Fifth Rate	Terrible	1	20·
Sixth Rates	Brisk	—	—
	Clio	—	—
	Encounter	—	—
	Gladiator	7	35·
	Highflyer	—	—
	Niger	—	—
	Racoon	10	35·7
	Scout	—	—
		17	19·7
Sloops	Harrier	—	—
	Hornet	1	33·3
	Mutine	1	22·2
	Sphinx	—	—
		2	14·8

APPENDIX—IRREGULAR FORCE—Table II.—*continued.*

Rate, &c.	NAMES OF SHIPS.	Number Invalided.	Ratio per 1,000 of Mean Force.
Gun Vessels - -	Assurance - - -	5	58·8
	Landrail - - -	—	—
	Philomel - - -	1	100·
	Sparrowhawk - -	2	100·
	Serpent - - - -	—	—
	Torch - - - -	—	—
		8	50·
Gun Boat -	Gleaner - - - -	—	—
Training Brig -	Martin - - - -	—	—
Yacht - - -	Enchantress - - -	1	33·3
Troop Ships - -	Himalaya - - -	5	20·3
	Orontes - - - -	6	30·
	Tamar - - - -	—	—
	Urgent - - - -	3	21·4
	Vulcan - - - -	2	33·3
		16	20·3
Store Ships - -	Megæra - - -	2	36·3
	Supply - - - -	2	36·3
		4	36·3
Marine Detachments	Marines, San Juan - -	2	44·4
	„ Falkland Islands	—	—
	„ Somerset - -	—	—
		2	23·5
	TOTAL of all Classes - - -	61	22·6

TABLE III.

SHOWING the Number of Deaths from Disease and Injury in each Ship, with the Ratio of Mortality per 1,000 of Mean Force.

Average Ratio for Seven Years, 11· per 1,000.

Rate, &c.	NAMES OF SHIPS.	Number of Deaths from Disease.	Number of Deaths from Injury.	Total Number of Deaths.	Ratio per 1,000 of Mean Force.
Iron-Clad -	Caledonia - -	—	—	—	—
Fourth Rates	Arethusa - -	—	—	—	—
	Constance - -	—	—	—	—
	Forte - - -	1	- -	1	12·5
	Narcissus - -	1	- -	1	66·6
	Octavia - - -	—	—	—	—
	Bacchante - -	1	- -	1	25·
		3	- -	3	9·3
Fifth Rate -	Terrible - - -	—	—	—	—
Sixth Rates -	Brisk - - -	—	—	—	—
	Clio - - -	—	—	—	—
	Encounter - -	1	- -	1	50·
	Gladiator - -	—	—	—	—
	Highflyer - -	—	—	—	—
	Niger - - -	—	—	—	—
	Racoon - - -	1	1	2	7·1
	Scout - - -	—	—	—	—
		2	1	3	3·4
Sloops -	Harrier - - -	—	—	—	—
	Hornet - - -	—	—	—	—
	Mutine - - -	—	—	—	—
	Sphinx - - -	—	—	—	—
		—	—	—	—

APPENDIX—IRREGULAR FORCE—Table III.—*continued.*

Rate, &c.	NAMES OF SHIPS.	Number of Deaths from Disease.	Number of Deaths from Injury.	Total Number of Deaths.	Ratio per 1,000 of Mean Force.
Gun Vessels	Assurance	1	-	1	11·7
	Landrail	—	—	—	—
	Philomel	—	—	—	—
	Sparrowhawk	—	—	—	—
	Serpent	—	—	—	—
	Torch	—	—	—	—
		1	—	1	6·2
Gunboat	Gleaner	—	—	—	—
Training Brig	Martin	—	—	—	—
Yacht	Enchantress	—	—	—	—
Troop Ships	Himalaya	1	1	2	10·2
	Orontes	—	—	—	—
	Tamar	-	1	1	5·2
	Urgent	1	-	1	7·1
	Vulcan	1	-	1	16·6
		3	2	5	6·3
Store Ships	Megæra	—	—	—	—
	Supply	-	1	1	18·1
		—	1	1	9·
Marine Detachments.	Marines, San Juan	1	-	1	22·2
	„ Falkland Islands	—	—	—	—
	„ Somerset	-	1	1	50·
		1	1	2	23·5
TOTAL of all Classes		10	5	15	5.5

TABLE IV.

SHOWING the Number and Nature of Fatal Casualties in each Ship.

Rate, &c.	NAMES OF SHIPS.	Number of Deaths.	Accidents, Injuries, &c.
Sixth Rate -	Racoon - - -	1	Wound of axilla, by accidental explosion of a rifle.
Store Ship - -	Supply - - -	1	Injury of head.
Troop Ships -	Himalaya - -	1	Rupture of spinal cord; fell from aloft.
	Tamar - - -	1	Drowned; fell off jibboom in a gale.
	Marine Detachment, Somerset.	1	Empyema; result of wound by natives.
	TOTAL - - -	5	

APPENDIX—IRREGULAR FORCE—*continued.*

TABLE V.

SHOWING the Comparative Sickness in the different Classes of Ships.

RATE, &c.	Average Complements corrected for Time.	Number of Cases of Disease and Injury.	Ratio per 1,000 of Mean Force.	Number Invalided.	Ratio per 1,000 of Mean Force.	Number of Deaths			Ratio per 1,000 of Mean Force.
						From Disease.	From Injury.	TOTAL.	
Iron cased Ship - -	80	90	1125·	—	—	—	—	—	—
Fourth Rates - - -	320	570	1781·2	10	31·2	3	- -	3	9·3
Fifth Rate - - -	50	83	1660·	1	20·	—	—	—	—
Sixth Rates - - -	860	1,406	1634·8	17	19·7	2	1	3	3·4
Sloops - - - -	135	247	1829·6	2	14·8	—	—	—	—
Gun Vessels - - -	160	364	2275·	8	50·	1	- -	1	6·2
Gun Boat - - -	10	19	1900·	—	—	—	—	—	—
Training Brig - - -	65	52	800·	—	—	—	—	—	—
Yacht - - - -	30	28	933·3	1	33·3	—	—	—	—
Troop Ships - - -	785	1,442	1836·9	16	20·3	3	2	5	6·3
Store Ships - - -	110	169	1536·3	4	36·3	—	1	1	9·
Marine Detachments -	85	86	1011·7	2	23·5	1	1	2	23·5
TOTAL - - -	2,690	4,556	1693·6	61	22·6	10	5	15	5·5

TABLE VI.

SHOWING the Number of Cases of Disease and Injury; the Number Invalided and Dead; with the Ratio per 1,000 of Mean Force for Seven Years.

YEARS.	Average Complements corrected for Time.	Number of Cases of Disease and Injury.	Ratio per 1,000 of Mean Force.	Number Invalided.	Ratio per 1,000 of Mean Force.	Number of Deaths			Ratio per 1,000 of Mean Force.
						From Disease.	From Injury.	TOTAL.	
1856 - -	10,000	13,830	1383·	136	13·6	78	27	105	10·5
1857 - -	7,490	10,879	1454·4	227	30·3	72	29	101	13·5
1858 - -	4,260	6,077	1426·5	68	16·	32	24	56	13·2
1859 - -	6,060	10,193	1682·	147	24·3	46	18	64	10·5
1860 - -	6,430	9,940	1545·9	168	26·2	41	21	62	9·6
1861 - -	3,730	6,396	1714·7	99	26·5	21	18	39	10·4
1862 - -	5,960	10,645	1786·	206	34·5	38	19	57	9·5
TOTAL - -	43,930	67,960	1547·	1,051	23·9	328	156	484	11·
1864–5 -	2,690	4,556	1693·6	61	22·6	10	5	15	5·5

TOTAL FORCE.

TABLE I.

SHOWING the Mean Force; the Number of Cases of Disease and Injury; the Number Invalided and the Number Dead; with the Ratio per 1,000 of Mean Force, on the different Stations.

STATION.	Mean Force.	Number of Cases of Disease and Injury.	Ratio per 1,000 of Mean Force.	Number Invalided.	Ratio per 1,000 of Mean Force.	Number Dead.	Ratio per 1,000 of Mean Force.
Home	20,810	20,899	1004·2	569	27·3	157	7·5
Mediterranean	8,045	10,723	1332·8	312	38·7	67	8·3
North America and West Indies	6,100	8,586	1391·7	153	25·	97	15·9
Brazil	1,040	1,948	1873·	28	26·9	108	103·8
Pacific	2,330	3,670	1575·1	104	44·2	19	8·1
West Coast of Africa	1,620	3,476	2145·6	115	70·9	46	28·3
Cape of Good Hope	2,200	3,223	1465·	82	37·2	44	20·
East India and China	5,080	8,798	1731·8	333	65·5	146	28·7
Australia	1,310	1,679	1281·6	35	26·7	15	11·4
Irregular	2,690	4,556	1693·6	61	22·6	15	5·5
TOTAL	51,225	67,558	1318·8	1,792	34·9	714	13·9

APPENDIX—TOTAL FORCE—*continued.*

TABLE II.

SHOWING the Ratios per 1,000 of Mean Force of the Number of Cases of Disease and Injury,

RATES.	Home.			Mediterranean.			North America and West Indies.			Brazils.			Pacific.		
	Ratio of Cases.	Ratio of Invaliding.	Ratio of Deaths.	Ratio of Cases.	Ratio of Invaliding.	Ratio of Deaths.	Ratio of Cases.	Ratio of Invaliding.	Ratio of Deaths.	Ratio of Cases.	Ratio of Invaliding.	Ratio of Deaths.	Ratio of Cases.	Ratio of Invaliding.	Ratio of Deaths.
Iron Clads	1259·6	26·4	8·2	1352·2	77·4	3·6	-	-	-	-	-	-	-	-	-
First Rates	-	-	-	1421·8	41·7	8·5	-	-	-	-	-	-	-	-	-
Second Rates	1252·7	47·8	3·6	956·9	31·3	6·7	1035·	19·	10·	-	-	-	-	-	-
Third Rates	-	-	-	1649·1	70·4	4·9	-	-	-	1639·1	17·3	408·6	-	-	-
Fourth Rates	1715·1	36·7	7·5	1399·3	27·8	18·3	1121·3	17·4	10·3	-	-	-	1262·7	24·5	10·7
Fifth Rates	-	-	-	-	-	-	-	-	-	-	-	-	1121·5	19·6	-
Sixth Rates	-	-	-	2132·6	25·7	-	1639·5	27·1	6·7	1633·3	20·8	16·6	2188·4	52·1	11·5
Sloops	-	-	-	1256·6	28·3	8·8	1725·2	34·2	11·2	2496·6	20·	6·6	1917·2	81·2	6·
Gun Vessels	-	-	-	1070·1	17·5	3·5	2177·7	44·4	3·1	-	-	-	-	-	-
Steam Vessels	1127·9	32·5	9·3	1388·	14·9	5·9	-	-	-	1248·	32·	24·	-	-	-
Gun Boats	-	-	-	1800·	28·5	-	-	-	-	1600·	40·	13·3	-	-	-
Stationary Ships	748·9	27·7	7·2	-	-	-	-	-	-	-	-	-	-	-	-
Drill Ships	791·6	13·8	13·8	-	-	-	-	-	-	-	-	-	-	-	-
Coast Guard Ships	1125·6	13·8	9·9	-	-	-	-	-	-	-	-	-	-	-	-
Training Ships	918·8	41·8	5·1	-	-	-	-	-	-	-	-	-	-	-	-
Yachts	750·9	-	3·7	-	-	-	-	-	-	-	-	-	-	-	-
Troop Ships	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Store Ships	1177·1	13·3	9·5	-	-	-	-	-	-	-	-	-	1466·6	44·4	-
Floating Battery (and Dockyard)	-	-	-	-	-	-	1250·9	7·8	156·8	-	-	-	-	-	-
Marine Detachments	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Training Brigs	1292·6	9·7	-	-	-	-	-	-	-	-	-	-	-	-	-
Receiving Ships	-	-	-	765·2	4·3	4·3	1304·7	33·3	14·2	2200·	85·7	57·1	-	-	-
Hospital Ships	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Surveying Vessels	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TOTAL	1004·2	27·3	7·5	1332·8	38·7	8·3	1391·7	25·	15·9	1873·	26·9	103·8	1575·1	44·2	8·1

APPENDIX—TOTAL FORCE—*continued.*

TABLE II.

of the Number Invalided, and of the Number Dead, in the different Classes of Ships.

West Coast of Africa.			Cape of Good Hope.			East India and China.			Australia.			Irregular.			Totals for each Class.		
Ratio of ases.	Ratio of Invaliding.	Ratio of Deaths.	Ratio of Cases.	Ratio of Invaliding.	Ratio of Deaths.	Ratio of Cases.	Ratio of Invaliding.	Ratio of Deaths.	Ratio of Cases.	Ratio of Invaliding.	Ratio of Deaths.	Ratio of Cases.	Ratio of Invaliding.	Ratio of Deaths.	Ratio of Cases.	Ratio of Invaliding.	Ratio of Deaths.
-	–	–	- -	–	–	- -	–	–	- -	–	–	1125·	–	–	1279·6	38·3	6·9
-	–	–	- -	–	–	- -	–	–	- -	–	–	- -	–	–	1421·8	41·7	8·5
-	–	–	843·5	29·4	20·5	2305·	112·5	55·	- -	–	–	- -	–	–	1121·4	38·3	13·4
-	–	–	- -	–	–	- -	–	–	- -	–	–	- -	–	–	1646·4	55·9	115·4
-	–	–	872·	88·	–	1166·4	74·8	15·6	- -	–	–	1781·2	31·2	9·3	1316·7	33·1	12·5
-	–	–	- -	–	–	1000·	31.5	10·5	1031·8	23·1	5·7	1660·	20·	–	1080·2	24·5	5·3
61·6	54·7	19·1	2020·9	41·9	12·5	1479·	36·2	12·	1137·2	27·4	11·7	1634·8	19·7	3·4	1724·5	32·7	9·4
25·	12·5	56·2	1692·3	23·	33·3	1800·	57·8	26·4	1496·	21·3	18·6	1829·6	14·8	–	1733·3	38·9	15·4
43·8	52·	26·	1957·8	73·6	63·1	2843·3	89·1	43·3	2275·	62·5	–	2275·	50·	6·2	2218·2	54·8	22·1
80·	300·	50·	- -	–	–	1680·	40·	13·3	- -	–	–	- -	–	–	1530·5	52·5	14·
00·	–	200·	- -	–	–	2285·7	138·	100·	- -	–	–	1900·	–	–	2091·1	97·	70·5
-	–	–	- -	–	–	- -	–	–	- -	–	–	- -	–	–	748·9	27·7	7·2
-	–	–	- -	–	–	- -	–	–	- -	–	–	- -	–	–	791·6	13·8	13·8
-	–	–	- -	–	–	- -	–	–	- -	–	–	- -	–	–	1125·6	13·8	9·9
-	–	–	- -	–	–	- -	–	–	- -	–	–	- -	–	–	918·8	41·8	5·1
-	–	–	- -	–	–	- -	–	–	- -	–	–	933·3	33·3	–	769·4	3·3	3·3
-	–	–	- -	–	–	2680·	44·	24·	- -	–	–	1836·9	20·3	6·3	2040·5	26·	10·6
00·	78·9	21·	- -	–	–	2333·3	266·6	266·6	- -	–	–	1536·3	36·3	9·	1196·6	36·1	15·8
-	–	–	- -	–	–	- -	–	–	- -	–	–	- -	–	–	1250·	7·8	156·8
-	–	–	- -	–	–	1832·9	84·5	49·4	- -	–	–	1011·7	23·5	23·5	1710·5	75·4	45·6
-	–	–	- -	–	–	- -	–	–	- -	–	–	800·	–	–	1174·	7·4	–
5·3	153·8	–	1736·8	21·	–	652·	28·	8·	- -	–	–	- -	–	–	1141·3	35·8	10·8
-	–	–	- -	–	–	4533·3	–	33·3	- -	–	–	- -	–	–	4533·3	–	33·3
-	–	–	- -	–	–	2100·	66·6	11·1	- -	–	–	- -	–	–	2100·	66·6	11·1
5·6	70·9	28·3	1465·	37·2	20·	1731·8	65·5	28·7	1281·6	26·7	11·4	1693·6	22·6	5·5	1318·8	34·9	13·9

APPENDIX—TOTAL FORCE—*continued.*

TABLE III.

SHOWING the Number of Cases of Disease and Injury; the Number Invalided and Dead; with the Ratio per 1,000 of Mean Force, for Seven Years.

YEAR.	Average Force corrected for Time.	Number of Cases of Disease and Injury.	Ratio per 1,000 of Mean Force.	Number Invalided.	Ratio per 1,000 of Mean Force.	Number of Deaths			Ratio per 1,000 of Mean Force.
						From Disease.	From Injury.	TOTAL.	
1856 - -	51,730	73,195	1414·9	* 998	*19·3	629	172	801	15·5
1857 - -	42,470	66,546	1566·6	1,460	34·4	623	196	819	19·4
1858 - -	43,120	75,924	1763·9	1,763	40·9	873	242	1,115	25·5
1859 - -	52,825	81,325	1540·2	1,994	37·7	624	262	886	16·7
1860 - -	64,025	90,329	1410·8	2,844	44·4	712	226	938	14·7
1861 - -	62,485	91,276	1460·7	2,391	38·2	716	224	940	15·
1862 - -	58,870	88,661	1506·	1,944	33·.	684	218	902	15·3
TOTAL - -	375,525	567,256	1510·5	13,394	35·6	4,861	1,540	6,401	17·
1864–5 -	51,225	67,558	1318·8	1,792	34·9	444	270	714	13·9

* Returns incomplete.

HEALTH OF THE NAVY.

RETURN to an Order of the Honourable The House of Commons, dated 31 July 1866;—*for*,

A COPY

OF THE

STATISTICAL REPORT

OF THE

HEALTH OF THE NAVY,

FOR THE YEAR 1863.

(*Lord Henry Lennox.*)

Ordered, by The House of Commons, *to be Printed*, 31 *July* 1866.

PREFACE.

In the month of February of the present year, a Statistical Abstract of the Health of the Navy for the period embraced between the 1st of July 1864 and the 30th of June 1865, was presented to the House of Commons, with the view of affording the latest information on that subject from authentic sources. Although such an abstract supplies a general view of the sanitary condition of the service sufficient for ordinary purposes, and it therefore appears desirable that it should be continued annually, it is not intended to discontinue the more detailed annual report which has hitherto been laid before Parliament, and which, apart from its containing more minute statistical information than can be procured from the returns from which the abstract is compiled, is thought to be valuable as recording the experience of the medical officers of the service on various important sanitary points, as well as furnishing a considerable amount of information in connection with medical topography. The abstract referred to, however, when appended to the following report, brings the sanitary statistics of the Navy, in a continuous form (with the exception of a few months), up to as late a period as the middle of last year.

It will be observed by the annexed report that, in the squadron on the Home Station, eruptive fevers were very prevalent, and caused a large amount of sickness; and that there was a daily loss of service equal to about two hundred and eighty men from those diseases which have been so long the opprobrium of our home ports, but which latterly have been much checked by the operation of the late Contagious

Diseases Act, and are likely rapidly to diminish under the influence of the more effective Act which has recently become law.

On the Mediterranean Station the prevalence of scarlatina in an epidemic form at Corfu occasioned considerable risk to the vessels of the squadron touching there. Fortunately, however, the disease was not propagated to any extent among the ships' companies. In the report on that station, the great prevalence of consumption upon it is referred to, and notice is taken of its probable cause.

The absence of yellow fever on the North American and West Indian Station influenced most favourably its death rate; so much so, indeed, that the ratio of mortality was lower in 1863 than probably ever occurred on that command.

Small-pox prevailed epidemically in one vessel on the south-east coast of America; and although only twenty-nine cases of the thoroughly developed disease were placed on the sick list, a very large number of men were simultaneously affected with fever of a continued type, which, from certain peculiarities connected with it, was no doubt attributable to modified action of the variolous poison.

On the Pacific Station an epidemic of influenza occurred in one vessel under very peculiar circumstances, an interesting account of which is furnished by the medical officer of the ship. Some useful observations also in connection with the climatology and medical topography of certain localities will be found in the report on that station.

On the West Coast of Africa the deleterious effects of exposure to malarious influences is well shown; and on the Cape of Good Hope Station, contrast is drawn between the results of boat service along the coast and boat service in rivers.

On the East India and China Station the removal of the squadron from the pestilential rivers at Shanghai and Ningpo to

to the more healthy climate of Japan, was attended with the most favourable results. Unfortunately, however, small-pox prevailed in a very malignant form in some of the vessels in Japan, and there was a large daily loss of service from a class of diseases which unhappily abound both in Yokohama and Nagasaki, and are unchecked by any system of surveillance whatever.

Upon the whole, the retrospect of 1863 is a very satisfactory one. With a total force of 54,090 men, a large number of whom were serving on stations utterly inimical to the European constitution, it is gratifying to be able to record that the sick rate was little more than five per cent., a large proportion of which was from trifling ailments; the invaliding rate three per cent., and the death rate only one per cent.; and of that death rate one-third was attributable to casualties. There can be no better evidence that the naval service, as a service, is peculiarly a healthy one, and that it is upon the nature of the station and the character of the duties upon which men are employed, rather than the construction or class of vessel in which they may be serving, that the sick rate of the Royal Navy depends. The whole organisation and discipline of the service is favourable to health; and this always appears when the absence of such fatal casualties as epidemics of yellow fever or cholera, or of warlike operations involving long continued exposure in pestilential localities, permits of the normal sick rate of the service being demonstrated.

Alex. E. Mackay, M.D.

Admiralty,
4 October 1866.

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HOME STATION.

Home Station.

THERE were sixty-three vessels of various classes employed on the Home Station during the year 1863. The mean force corrected for time was 21,570 men, and the total number of cases of all diseases and injuries placed on the sick list was 22,788, which is at the rate of 1056·4 per 1,000 of mean force. Of these 625 were invalided, and 153 terminated fatally, the former being in the ratio of 28·9, and the latter of ·7 per 1,000, being under both heads slightly below the ratios of the preceding year.

The daily loss of service from febrile diseases was equal to about thirty-three men, or in the ratio of 1·5 per 1,000; from disease of the brain and nervous system the ratio was ·4; diseases of the respiratory organs, 6·2; of the organs of circulation, ·4; of the alimentary canal, ·6; of the liver, ·2; of the genito-urinary organs, 12·8, of which 10·1 were derived from syphilis alone; from rheumatism and diseases of the bones and joints the daily loss of service was equal to about seventy-two men, or in the ratio of 3·2 per 1,000; from ophthalmia, ·5; from diseases of the skin and cellular tissue, 11·1; from dyspepsia and debility, ·8; and from wounds and injuries of various kinds, 5·9. The average number of men sick daily on board ship and in hospital was 989·5, which is in the ratio of 45·8 per 1,000 of mean force, a slight decrease as compared with the previous year.

The periods for which the various returns are rendered by the different vessels range from three to twelve months; but nearly five-sixths of them are for the whole year.

Fevers.—There were 329 cases of continued or remittent fever under treatment throughout the year, of which two were invalided and nine terminated fatally. The ratio of cases was slightly in excess of that of the previous year, but the mortality was less. The ships which had the largest

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number of cases were the St. Vincent, the Edgar, the Black Prince, the Revenge, and the Cumberland; but of these vessels fatal cases only occurred on board the Edgar and Black Prince. The other deaths in the force from these fevers were in the Dauntless, Geyser, Jackal, Lizard, and Wellesley.

There were sixty-eight cases of primary fever in the St. Vincent, all of which were of an ephemeral nature, the loss of service from each case averaging about seven days. The majority of the cases occurred in the Lady and Michaelmas quarters of the year, but none of them presented any points of interest whatever.

In the Edgar there were twenty-two cases of primary fever, and of these two terminated fatally. In these two cases the disease was of the enteric type, and was contracted at Leith, where it was prevailing on shore at the time. The history of these cases is thus given by the surgeon* of the ship.

"We remained at anchor in Leith Roads three miles off shore, from the 31st of July till the 5th of August, inclusive. The ship during the whole of this time was crowded with visitors, and general leave, two days to each watch, was given to the ship's company. Typhoid fever was rife in the low parts of the town, but fortunately the greater attractions of the City of Edinburgh, where the fever was less common, prevented the men exposing themselves to the infection of this disease at the seaport, and two men only were attacked, though both died. A man belonging to the carpenter's crew, previously healthy, went on shore on the evening of the 30th of July, slept on shore in one of the low streets of Leith, felt unwell on the 31st and came off to the ship in the evening, complaining of having suffered from vomiting and purging. On the following day he complained of dull headache, and lumbar pains, and had a dusky countenance; in the evening he complained of tenderness in the right iliac fossa, the tongue being dry, hard, and brown. On the 2nd of August, being the third day of the disease he was sent to the Leith Hospital, where he died on the 7th of August, being the eighth day of his illness. No other case of this kind occurred until the 20th of August, fifteen days after leaving Leith, and at least seventeen days after the man had been out of the ship. We had in the interim visited the Firth of Cromarty, and Kirkwall, at neither of which places was there any typhoid fever, nor had the man landed. Two mild cases of febricula had occurred, and been discharged to duty in a few days. On the 20th of August when lying at Inganess Bay, near Kirkwall, waiting for the weather to moderate before proceeding on our voyage to Belfast, a fine looking marine complained of pains in the back and limbs; he had no heat of

* Surgeon W. H. Sloggett.

of skin, and the pain resembled that of lumbago rather than fever. He was given an aperient, and on the following day felt better, but I now remarked a peculiar feverish look in his face, and he had increased frequency of pulse, with a hot moist skin, and much debility. On the 24th enteric symptoms set in, delirium came on the same night; on the 26th of August he was sent on shore at Moville to sick quarters, where he died on the 31st of August. Petechiæ appeared on the morning of the 26th. The peculiar severity of the symptoms in both these cases shows in how malignant a form the disease must have existed at Leith, and that so few fell victims is certainly dependent on the fact that very few were exposed at night to the risk of infection, as all the men spent their time of leave in Edinburgh."

One other case that occurred in this vessel was of considerable interest from the fact that the subject of it was an officer who had suffered formerly in China from an abscess in the liver which had burst externally, as well as from remittent fever. The febrile symptoms on the present occasion bore no relation in point of severity to the subsequent prostration and night sweats. An occasional dose of calomel, preparations of quinine and iron, but, above all, change of air, speedily effected a cure, although for some time he was liable to attacks of debility. All the other cases were of an ephemeral nature, their average duration being only about six days.

In the Black Prince there were twenty-two cases of primary fever, all of which, with the exception of three, appear to have been of an ephemeral nature. These three cases, however, were examples of severe enteric fever, two of them terminating fatally. The following history of them is given by the surgeon* of the vessel:—

"The first case of this disease (typhoid fever) which was sent to hospital, and ultimately proved fatal, was that of a seaman who was placed on the sick list on the 7th of October, complaining of catarrh, with febrile symptoms. Purgatives were given, and sudorifics. During the next three days he continued in the same state. On the third day he had urgent thirst, a brown tongue, and sordes on the teeth. His pulse was 100, and weak. On the evening of the 10th, minute pink spots were observed on the trunk and limbs, and pain felt in the right iliac fossa. Muttering delirium came on during the night, which he passed restlessly. On the 11th he was removed to Plymouth Hospital, where he died. The second case was that of another seaman who was placed on the sick list on the 26th of October, complaining of rigor, headache, and general debility. His pulse was 100, tongue foul, skin hot and dry. He had suffered from these symptoms for three days, but did not apply for medical relief. He was at once sent

* Dr. L. C. Urquhart.

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sent to hospital, where he soon afterwards died. In the third case, the man, also a seaman, was taken ill on shore at Devonport on the 2nd of November, the symptoms being much fever, with sore throat and diarrhœa. He was sent to Plymouth Hospital on the 4th, where pink spots developed themselves on the trunk, and during the night he had an attack of epistaxis. He ultimately recovered.

"The first man affected had been on leave at Liverpool, while the ship lay there, and had overstepped his leave. He is supposed to have contracted the disease there. The second man attacked was his chum, who attended him during his illness on board, and packed up his clothes when he was sent to hospital. The third man did not belong to the same mess, and had no communication with either of the others. He is supposed to have contracted the disease at Devonport, where he slept nightly on shore, his mother being resident there. The first man was taken ill in Plymouth Sound ten or twelve days after leaving Liverpool."

In both of the fatal cases Peyers patches were found on post-mortem examination, to be enlarged and congested, but not ulcerated. In one there was a diverticulum in the small intestine of about the size of the finger of a glove, about three feet from the ileo-colic valve.

There were seventeen cases of primary fever in the Revenge, almost the whole of which occurred during the Midsummer quarter, when the vessel left the Home Station for the Mediterranean. They were altogether of an ephemeral nature, the mean duration of each case being only about four days. They were the result of atmospheric vicissitudes.

Fourteen cases of primary fever are referred to the Cumberland in Table 6, but of these eleven occurred in men who, although borne on the books of that ship, were employed in the naval barracks at Sheerness. The average duration of each of these eleven cases was about thirteen days, which is a longer period than is ordinarily taken by a simple form of fever, but as no reference whatever is made to them in the returns from the barracks, they were presumably not of much importance. Of the three cases that occurred on board the Cumberland, two are entered as gastric fever, and one as remittent. In each case the person attacked was an officer, and in none were the symptoms of a severe nature.

Besides the fatal cases of primary fever already noticed there were fatal cases in the Dauntless, Geyser, Jackal, Lizard, and Wellesley. The majority of these terminated fatally either in Haslar, Plymouth, or Chatham Hospital.

The case in the Dauntless was that of a boy belonging to a coast guard tender, who when admitted to Haslar Hospital was

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was unconscious, and remained so more or less until his death, which occurred ten days after his admission. On post-mortem examination of the body, besides the usual amount of congestion and effusion found in such cases, there was a yellow fibrinous deposit, between the optic commissure and the pons varolii.

The fatal case in the Geyser was a well marked example of enteric fever. It occurred in the person of a seaman, a steady, healthy man, who had slept out of the ship one night at Portsmouth two or three days previous to the attack. He presented himself on the 15th of September complaining of pains in the head, back, and limbs, with diarrhœa and some general febrile disturbance. The stools became very frequent, of a pea-soup appearance, and prostration increased. There was a dusky eruption over the abdomen, the pulse was weak and small, 115, and he answered questions very slowly. In this condition he was discharged to Plymouth Hospital, where he died on the 20th. On post-mortem examination of the body there was found considerable enlargement of the solitary and agminated glands of the small intestine, with ulceration of the latter.

There was a fatal case of enteric fever in the Jackal. It occurred in the person of a stoker, and the disease appears to have been contracted at a small village on the banks of Loch Fyne, where it was exceedingly prevalent at the time the vessel was there, an unusual number of people being crowded together consequent upon the fishing season. The case proved fatal on the 21st day after his being placed on the sick list, but it would appear that he had been complaining for some days previously.

A case of enteric fever proved fatal in Chatham Hospital in the person of a petty officer of the Lizard. Very little information is given concerning it, but it appears to have been of great severity, as the man was placed on the sick list on the 1st of April and died on the 5th. The chief symptoms were diarrhœa, tenderness over the abdomen and great prostration.

A boy of the Wellesley died of what is returned as continued fever, in Chatham Hospital. He was, however, sent to hospital labouring under erysipelas of the face and scalp, and from the time of his admission on the 25th of November, until the day of his death, the 5th of December, he lay in a comatose state. On post-mortem examination of the body the dura mater was found to be highly congested, and underneath

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neath the arachnoid there was a layer of purulent matter. The case would appear to have been one of meningitis.

Intermittent Fever.—One hundred and twenty-seven cases of ague were placed on the sick list throughout the year, which is in the ratio of 5·8 per 1,000 of mean force, precisely the same ratio as obtained in the preceding year. The total days sickness on board ship and in hospital from these cases, give an average duration to each case of about nine days. One man under treatment for ague was invalided in consequence of the disease being complicated with epileptiform seizures.

Eruptive Fevers.—There were thirty-nine cases of small pox, forty-three of measles, and one hundred and fifty-nine of scarlatina under treatment. Of these, two cases of small-pox and three of scarlatina proved fatal.

Small-pox.—This disease appears to have been prevailing more or less at all the seaports, and although it did not affect a large number of the ship's companies at any place, cases occurred in vessels at Hull, Woolwich, Sheerness, Chatham, Portsmouth, Plymouth, on the east and west coasts of Scotland, and in Ireland.

At Hull there were three cases of small-pox in the Cornwallis. The disease was exceedingly prevalent in the town, particularly during the spring and summer months, and had caused a considerable amount of mortality. Of the three cases that occurred in this vessel, one was in the person of a seaman who was taken ill while on leave. He presented no marks of vaccination, but he stated that it had been three times attempted to vaccinate him while he was serving in the Excellent two years previously, and that on each occasion it had failed. He was at once removed to sick quarters, where the disease assumed the confluent form. In the second case, marks of vaccination were distinct on both arms, and the case was a very mild one; but in the third case, that of a coloured man with a very imperfect vaccination cicatrix, the attack was most severe, and the character of the eruption confluent.

At Woolwich, in the Fisgard, there were four cases of small-pox. One assumed the confluent form, but made a good recovery; the others appear to have been of a milder character. Very little information, however, is given in connection

nection with the cases, and no mention is made as to whether any of them showed vaccination marks.

At Sheerness there were four cases of small-pox in the Cumberland and one in the Formidable. Two of those returned as belonging to the former vessel occurred in seamen doing duty in the naval barracks on shore. They appear to have been mild cases, but no reference is made to the existence of vaccination marks in either of them. In Table IV. a death from small-pox is entered against the Cumberland; this occurred in a seaman doing duty in the naval barracks who was sent to Chatham Hospital labouring under an unhealthy ulcer on the leg. A few days after his admission he was seized with severe febrile symptoms which culminated in a virulent eruption of confluent small-pox, under which he sunk exhausted.

In the Wellesley, the guardship at Chatham, a boy who had been brought on board the ship as a deserter, presented himself eight days afterwards complaining of ordinary febrile symptoms. These proved to be the forerunners of an attack of small-pox for which he was at once discharged to hospital; vaccination marks were distinct on both arms.

At Portsmouth single cases of small-pox occurred in the Excellent, Duke of Wellington, and St. Vincent. They were all of a modified type, the persons attacked having been previously vaccinated.

At Plymouth there were two cases of small-pox in the Indus, one in the Royal Adelaide, and three in the Impregnable. The majority of these cases were modified by previous vaccination; but, with reference to one of the cases in the Impregnable occurring in a boy who presented no marks of previous vaccination, the staff surgeon* states: "In consequence of this case having occurred it was thought prudent to examine all the boys with the view of ascertaining if any were not vaccinated. Thirty-four, who had neither marks of vaccination nor of variola were vaccinated with lymph obtained from the National Vaccine Institution. Of the whole number vaccinated only three were successful. Among the Irish boys not a few had never been vaccinated, but were well marked by small-pox; others with no mark of either, yet gave a history of having had variola, and it would appear that to this only can the large number of unsuccessful cases be attributed."

In

* Staff Surgeon M. Thomson.

Home Station.

In the Hogue, stationed in the River Clyde, off Greenock, there were eleven cases of small-pox, one of which proved fatal in sick quarters. The disease was prevailing extensively on shore, and the first case that occurred in the Hogue was in the person of a seaman who had slept in a house at Stornoway, in which there was a case of small-pox. In the fatal case the character of the eruption was very obscure, but it occurred at the same time, and the man was sent to sick quarters with other four cases of the disease. The surgeon of the sick quarters under whose charge he came, says that the eruption never became developed beyond a dusky mottling of the skin, and considers its nature doubtful. Previous to death hæmorrhage took place from the bladder and rectum. In all the cases that occurred on board this vessel the men had been previously vaccinated.

A single case of small-pox occurred in the Edinburgh, stationed off Queensferry, in the Frith of Forth. The subject of it, a marine, had contracted the disease on shore, where it was rather prevalent. He had a good vaccination cicatrix on his arm, and the attack was of a very modified character.

A somewhat severe case of small-pox occurred on board the Hastings, at Queenstown, in Ireland, in the person of a seaman who had just returned to the ship after long leave; he was sent to Haulbowline Hospital, where he ultimately recovered. It is not stated whether he had been previously vaccinated or not. In the Hawke, also at the same place, there was a modified case of small-pox, but, as in the preceding case, no mention of previous vaccination is made.

Three cases of small-pox occurred in vessels attached to the Channel Fleet, one in the Edgar, one in the Emerald, and one in the Warrior. The disease appeared in these vessels subsequently to their leaving Greenock, where it was prevailing in a very virulent form at the time, and where leave had been given to the ships' companies.

Measles.—There were forty-three cases of this form of eruptive fever under treatment. The total days' sickness on board ship and in hospital, from all the cases, gave an average duration of about fifteen days to each. The vessels which had the largest number of cases were the Impregnable and the Edgar, and in both the disease was contracted at Plymouth, where it was prevailing epidemically on shore. In these ships, and in the Excellent, where also there were several cases of the fever, it was of an exceedingly mild type.

Scarlatina.

Home Station.

Scarlatina.—One hundred and fifty-nine cases of this formidable exanthem were admitted to the sick list, and in three of these it terminated fatally. The total days' sickness on board ship and in hospital, from all the cases, gave an average of a little over three weeks duration to each.

Two cases of scarlatina occurred in the Black Prince in the Christmas quarter of the year. The disease appears to have been contracted at Plymouth, where it was prevailing on shore. Both cases were mild.

In the Britannia there were twenty-four cases of scarlatina, eleven of which occurred during the Michaelmas, and thirteen during the Christmas quarter of the year. The history of this epidemic is thus given by the surgeon* of the ship.

"On the 10th of September, the ship being then at Portland, a cadet was added to the sick list for a sore throat, which had commenced on the previous evening; and during the day there were sharp febrile symptoms, with nausea and vomiting. At the evening visit a rash was observed on the chest, which was at once pronounced to be that of scarlatina, and due precautions were taken to prevent any of the other cadets from going near him; and early on the following morning he was sent to the sick quarters for treatment. He had been on board this ship since the 1st of August, and was not aware of having been near any person who had scarlatina. There had been a few cases amongst the poor at Portland. On the 12th a serious case occurred. On the 18th a third, and up to the time of our leaving Portland (on the 29th of September) 11 cases had occurred, all having been sent on shore to the cadets' sick quarters for treatment, immediately any suspicious symptoms were noticed. The Michaelmas holidays now commenced, and during the absence of the cadets the decks were scrubbed with a disinfecting powder, and the beams and sides of the ship were well whitewashed. On the 7th of October a suspicious case of sore throat came under treatment, and was immediately sent to the naval hospital at Plymouth; and on the 8th a second one was also sent there, which latter proved to be a case of scarlatina, although the former passed off as one of cynanche. On the 11th another case occurred, and cases were now added every second or third day. Between the 23d of October and the 5th of November no fresh case occurred, and we hoped that the disease had left us; but a case was added that day for malaise, a rash was developed on the 8th, with an accompanying sore throat, and he was sent to sick quarters for scarlatina. On the 6th of November, another case was added, and on the 8th four more.

"It now became a question what had better be done; two of the twenty-four cases having terminated fatally, the parents of the cadets

* Surgeon Wm. McK. Saunders.

Home Station.

cadets being in a great state of alarm, and no prospect of the disease disappearing, a fresh outbreak having just taken place, my advice was that the cadets should be sent to their homes, which was immediately acted on; and they left the ship on the 9th and 10th of November, the only cadets remaining being the passing out numbers, whose examination was hurried on. Before the cadets left the ship they were examined by the assistant surgeon or myself, to see that the disease was not then affecting them, and to detain such for treatment at the sick quarters; not one, however, was detected, although a few of them had the disease after their arrival at their homes.

"On the 15th of November a cadet's servant was taken ill with scarlatina, and was immediately sent to sick quarters. This was the only case which occurred amongst the ship's company, although there are about thirty-six boys on board, in addition to fifty marines, forty cadets' servants, and 112 seamen. I can only explain this immunity on the part of the ship's company from the various infectious diseases which have occurred on board the Britannia, to the fact of the children of the poorer classes having had most of these diseases, from greater exposure to infection than the children of the middle and upper classes of society.

"Amongst the passing out cadets, fifty in number, who remained on board, no case of scarlatina occurred, nor were any of the sixty-six cadets who did not go away during the Michaelmas holidays, attacked; and it appears that when the number of cadets has been much reduced at any time, that the prevailing disease has immediately disappeared.

"When the cadets had left, the ship was fumigated, the decks were washed with a solution of chloride of zinc, the beams and sides of the ship were whitewashed, all the counterpanes, blankets and sheets were washed, and the beds well aired.

"A great many cases of cynanche were weekly added to the list during the prevalence of scarlatina, the velum presenting the same fiery redness as in that disease."

The surgeon* in charge of the cadets' sick quarters at Portland makes the following observations on the cases sent there for treatment:

"Of the eleven cases admitted, two were scarlatina simplex, eight scarlatina anginosa, and one scarlatina maligna. One case returned in the classification as cynanche tonsillaris ought more properly to have been entered as scarlatina simplex; for, although unattended with any eruption, the tongue and fauces were sufficiently indicative of the disease; this boy had suffered from the disease, in a severe form, about five years previously. In the two cases of scarlatina simplex, the fever subsided in twenty-four hours; in the one case the eruption was very lightly marked over the chest and arms, and inner part of the thighs, whilst in the other, the trunk and extremities were

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Dr. J. T. U. Bremner.

were covered with a bright rash; but in both, the throat symptoms were very trifling, the characteristic prominent papillæ of the tongue being, however, well marked. In the eight cases of scarlatina anginosa the throats of all were extremely painful; fauces, velum, uvula, and tonsils were highly inflamed and swollen, and there was great difficulty in swallowing, even fluids. In nearly all the cases, ropy mucus was, from time to time, expectorated or vomited. Delirium was not unfrequent, and in some instances there were discharges from the eyes, and nostrils, and ears. In one of the cases the salivary glands became painfully swollen, diarrhœa set in, with prostration of all the vital powers, threatening sinking; but by constant watching, and frequent and carefully regulated supplies of champagne, wine, strong soups, &c., his life was preserved. The case of scarlatina maligna showed itself, in its frightful form, in little more than forty-eight hours after admission, followed by low muttering delirium, the patient pulling the bed clothes, and occasional wild clutching at vacancy. The pulse was 160; the skin very hot and dry. There was a mucous discharge from the eyes and nostrils, with deep injection of the vessels of the conjunctiva. The tongue was brown and crusted, the lips parched and blackened, and the throat the seat of sloughing ulceration. A strong solution of lunar caustic was at once freely applied to the throat, and repeated when necessary. Wine, beef-tea, jellies, ice, chlorate of potass with the drinks, and ammonia, were frequently administered, while large bran and vinegar poultices were applied to the throat. Unhappily, all the means employed proved of no avail, and he sank on the forenoon of the 8th. Upon the Britannia removing to Dartmouth, the sick quarters remained occupied by the cadets suffering from scarlatina, the last case of which was discharged on the 26th of November."

A single case of scarlatina appears in the returns from the Dauntless. It occurred in the person of a seaman doing duty in a coast guard tender. He was at once removed to Haslar Hospital.

In the Lady quarter of the year, ten cases of scarlatina occurred on board the Excellent, chiefly in the early part of the quarter. The staff surgeon* makes the following observations upon them: "The disease prevailed extensively on shore, as well as on board of other ships, at the same period. In some instances before the attack began, and apparently during the incubation of the morbid poison, a catarrhal complaint seized the patient. It speedily passed off, and a day or two's good health preceded the shivering which ushered in the scarlet fever. The eruption also showed some peculiarities, for it did not altogether resemble that which usually accompanies the disease, but looked more as if it were a hybrid between

* Staff Surgeon J. Thomson.

Home Station.

between the exanthemata of rubeola and scarlatina. Cynanche was frequent as an idiopathic disease, and many cases were sent to hospital, not on account of their severity, but in doubt whether they might not turn out symptomatic of scarlatina."

There were twenty-four cases of scarlatina in the Implacable, the training ship for boys at Devonport, and of these one proved fatal in Plymouth Hospital. This outbreak of fever took place in the Lady quarter of the year. The first case occurred on the 19th of February, and at first did not excite any suspicion, there being no febrile disturbance, comparatively. It was looked upon as a case of ordinary cynanche. Forty-eight hours after admission, however, the eruption made its appearance, and he was discharged to hospital on the 21st. No other case occurred until the 14th of March, when a boy presented himself with the eruption fully developed on his trunk and extremities, and was accordingly at once removed from the ship. The surgeon* of the Implacable thus describes the progress of the epidemic, and the preventive measures adopted in connection with it:—

"On the 15th and 17th, cases occurred in different parts of the ship, and on the 18th, six boys were placed on the sick list, manifesting symptoms of the disease. I then recommended that a hulk should be applied for, to be appropriated for the reception of a portion of the boys, for the purpose of segregation. The Agincourt (a two-decker) was accordingly lent for the occasion, and after a careful examination of each boy, 225 were transferred to the Agincourt on the 19th. Those boys who had already had scarlatina, and some who had slight congestion of the fauces, about 200, were retained on board the ship. On the second case occurring, on the 14th, the whole of the boys composing the mess in which it happened were removed from the lower deck, and placed by themselves on the main deck, and not allowed to go below, or mix with the rest of the boys. Free chlorine was disengaged in the space occupied by the mess, and the place whitewashed, solution of chloride of zinc being added to the whitewash; sheets saturated with solution of chloride of zinc were suspended from different parts of the deck, and good fires kept up night and day, and hanging stoves from time to time in the orlop deck and holds, the ship being kept as dry as possible. On the 21st of March every person was sent off the lower and orlop decks, tarpaulins were secured over the hatchways on the main deck, and the lower deck was fumigated with free chlorine, obtained from the binoxide of manganese and hydrochloric acid, after which no other case occurred on board. Three cases appeared among the boys on

* Surgeon J. J. Martin.

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on board the Agincourt, one on the 20th of March, one on the 22nd, and the third on the 26th. Considering the apparently beneficial result of fumigating the ship, the same process was gone through on board the Agincourt, and no other cases occurred afterwards. From the circumstance of no cases occurring after the fumigation in both ships, it may be reasonably inferred that the chlorine destroyed any infectious miasma, and arrested the further progress of the disease. I do not, however, assume that it was the sole cause of the cessation, but I consider that in any future outbreak of exanthematous diseases, the fumigation with chlorine is worthy of further trial. The progress of the disease having been apparently arrested, it was suggested that those boys who wished to go on leave, might be permitted to do so; and this being acquiesced in, on the 1st of April about 190 boys went, on leave, to their friends, and the remainder were allowed to go on shore every day. All hands were turned over to the hulk, and the ship was thoroughly fumigated on the 3d of April, by placing vessels containing the fumigating ingredients along each side of the orlop and lower decks, as well as in the holds and well; and the tarpaulins were kept on for twenty-four hours.

The boys returned from leave on the 15th of April, and as they were being mustered on deck, one of the boys was observed to be flushed and heavy looking. He was suffering from scarlatina, of which no notice had been taken by his friends, although the eruption was distinct. He was not allowed to go below, but at once removed to the hospital, and notwithstanding that he had been in close contact with the other boys, and sitting in a crowded boat, fortunately no other case occurred."

The fatal case that occurred in connection with this epidemic appears to have been an example of scarlatina maligna in its most aggravated form. The report from Plymouth Hospital states that from the first there existed excessive congestion of the fauces, which resulted in suppuration under the deep cervical fascia, and subsequent extensive sloughing of the soft parts.

In the Impregnable there were five cases of scarlatina. Of these three occurred in the Lady quarter and two in the Michaelmas quarter of the year. Cynanche was, however, exceedingly prevalent amongst the boys, and the staff surgeon* states that suspicious cases of this nature were carefully separated from the rest of the boys, and frequently visited in order that the first indication of eruption might be detected, but that in none of the boys thus kept apart for precautionary reasons did scarlatina develop itself.

There was a single case of scarlatina in the Indus in the person

* Staff Surgeon A. Murray.

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person of a seaman whose children had the disease at the time. He was treated on shore, and did well.

Three cases of scarlatina occurred in the Pembroke at Harwich, in the Christmas quarter of the year. The disease was prevailing epidemically on shore, and caused considerable mortality. One of the cases in this vessel was of considerable severity.

Eighty-six cases of scarlatina, or its sequelæ, occurred in the St. Vincent, the training ship for boys at Portsmouth. Of these forty-two are returned as cases of scarlatina, and forty-four as cases of albuminuria. The epidemic does not appear to have been of much severity, although the proportion of cases of scarlatinal nephritis is certainly very large. The staff surgeon* of the vessel gives the following account of this outbreak :—

"It (scarlatina) first made its appearance on the 6th of February in the person of a delicate cachectic boy, who, on the evening of the 5th of February was seized with some pain in the head, chest and loins, and during the night had rigors, great heat of skin, and thirst. On the following morning he complained of sore throat, which was swollen and ulcerated; the pulse was quick and small, the tongue white, the skin hot and dry, and the body covered with a scarlet eruption. He was sent to hospital at once. Although this was the first decided case that occurred, I do not believe it was the origin of the infection, as the time the lad had been on board (thirty-one days) was a longer latent period than is generally ascribed to the poison. I am led to believe that the infection was introduced into the ship about the 27th of January, by a boy who was placed on the list with what was called catarrh, which was very prevalent on board at the time. He complained of pain in the head and chest, troublesome cough, which is unusual in scarlatina (though a marked symptom in all the cases that occurred on board), and the general feverish symptoms accompanying influenza, but no sore throat was present. On the 2d of February he was convalescent, and I then observed for the first time desquamation of the skin on the palms of the hands and body; but as there had been no sore throat nor eruption noticed, I did not consider it to be a case of scarlatina at that time, although, as the sequel proved, it was no doubt our first case of that disease, and the source of infection. When the boy, who was placed on the sick list on the 6th of February, proved to be labouring under scarlatina, these circumstances recurred to me, and upon enquiry I found that the first boy had been on shore a few days previously to his coming on the sick list, and had been visiting at a house where two children had been suffering from scarlet fever. Fresh cases now occurred every day, and between the 6th and 18th of

* Staff Surgeon F. M. Rayner.

of February we had thirty-four patients placed on the list, with the disease. From this date the fever gradually subsided, no case occurring after the 3d of March." Home Station.

One of the boys sent to hospital died of desquamative nephritis. It appears that two years previously he had had a somewhat similar attack, and that ever after his urine had been more or less albuminous. On post-mortem examination of the body the kidneys were found to be pale, and the right one placed lower in the abdomen than natural, and of an unusual shape. In many of the nephritic cases that occurred on board the ship the urine was tested and microscopically examined. In most of them it was albuminous, and tube-casts, blood discs, and pus globules were also found.

Single cases of scarlatina occurred in the Squirrel at Plymouth, and in the Victory at Portsmouth. In the former vessel the patient was a boy who had belonged to the Impregnable, in which vessel, as previously noticed, there had been several cases of the disease; and in the latter the person attacked was a mess servant who had only recently rejoined the ship from leave, and who in his absence had been residing in the same home with his sister who was convalescing from scarlatina. In both instances the patients were at once discharged to hospital.

Diseases of the Brain and Nervous System.—Two cases of meningitis, one in an officer of the Canopus, the other in a boy of the Impregnable, terminated fatally in Plymouth Hospital. In both cases the patients were admitted with catarrhal or pneumonic symptoms and acute headache, and in both the chest affection speedily subsided, the headache continuing. Cerebral disturbance soon became marked, and delirium set in followed by coma. The post-mortem appearances in both cases were much alike: congestion of the membranes of the brain, with effusion of lymph on the arachnoid, and of coloured serum into the ventricles.

A seaman of the Cumberland, a syphilitic subject, was placed on the list with catarrhal symptoms, coryza, and a purulent discharge from the left ear. He had felt acute pain in the same ear about a month previously, but that had subsided. On examination the tympanum was found to be ulcerated. He looked cachectic and experienced a dull pain or uneasiness in the forehead. He rapidly became debilitated; partial paralysis of the left side of the face supervened, and the mouth and tongue, when protruded, were drawn to

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to the right side. The discharge from the ear became copious and fetid, the face looked puffed, and was of a darkish colour, and when spoken to he stated that he was in no pain, although he lay groaning heavily. In this state he continued, the breathing gradually becoming more and more stertorous, until his death. The following report of the post-mortem examination of the body is by the staff surgeon* of the Cumberland :—

"On removing the calvarium, cartilaginous growths were observed firmly attached to the dura mater in various places, and varying much in size, from a pin's head to a hazel nut. One of the largest was attached to the dura mater over the left side of the occipital bone, and another to the same membrane over the anterior portion of the petrous portion of the temporal bone. One of medium size was attached to the right orbital bone near the crista galli, the smaller being found attached to the dura mater, covering and dividing the lobes of the cerebellum. The vessels of the pia mater were full of blood, but there was no effusion nor softening. The larger growths adverted to, made marked impressions on the adjoining convolutions of the brain, especially the growth in the occipital region on the left side which indented the left lobe of the cerebellum in a remarkable manner, otherwise the dura mater looked very healthy, and there was no sign outwardly of necrosis of the internal ear, nor abscess from irritation, as I expected to have found, to account for the large and sudden discharge of fetid matter reported to have taken place from the external ear a day or two prior to death. A probe introduced through the external meatus showed that the membranum tympani was destroyed, and perhaps the period of perforation was that of the discharge of fetid matter.

A boy from the Impregnable, while convalescing from varicella, in the Naval Hospital at Plymouth, was suddenly attacked with delirium and convulsions, terminating in coma, from which he never rallied, death taking place on the fifth day from the invasion of cerebral symptoms. The report of the autopsy is to the effect that the scalp was marked with several scars, stated to be the result of a fall from a height of thirty-six feet, when a child. The membranes of the brain were highly vascular and covered with lymph, and there was considerable serous effusion in the ventricles and at the base of the brain. The brain showed many red points on being sliced.

There were four deaths from epilepsy. One occurred in the person of a seaman of the Dauntless, who was under treatment for symptoms referable to disease of the liver, and who

* Staff Surgeon Wm. Loney.

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who stated that since a former illness he had had while serving in the trenches before Sebastopol, he had suffered more or less at times from severe pain on the top of the head. This pain now recurred, with nausea and disposition to vomit, and constipation of the bowels. He appeared to be slowly improving under treatment when obstinate vomiting set in, accompanied with twitchings of the right side of the body, resembling chorea. These twitchings became more severe in character, and on the third day after their first appearance he had a violent epileptic seizure, which lasted an hour. When consciousness returned, the convulsive twitching continued constant. On the following day he had two epileptic fits, and the twitchings afterwards affected both sides of the body. Next day hæmatemesis, hæmoptysis, and epistaxis, lasting for twenty-four hours, complicated the case, and from that time he began to sink (the convulsive twitchings being very severe), and at length died somewhat suddenly on the morning of the seventh day from the first appearance of the convulsive movements. It is much to be regretted that no post-mortem examination appears to have been made of the body.

A marine of the Hastings died from the effects of long-continued and violent epileptiform fits, in the Naval Hospital at Haulbowline. On post-mortem examination of the body, the membranes and vessels of the brain were found much congested, as likewise was the choroid plexus. There was no effusion in the ventricles. He was moribund when taken to the hospital, and died a few hours after admission. The staff-surgeon of the hospital states that the case much resembled one of congestive apoplexy.

Epilepsy proved fatal to a seaman of the Indus, who is said to have been wounded on the head by a musket ball while serving in the trenches before Sebastopol. He was on leave on shore at the time he was attacked, and, two days prior to his death, had a succession of fits of an epileptiform character, which resulted in a state of coma, from which he never rallied. It is also stated that he laboured under valvular disease of the heart.

An officer of the Pembroke is reported to have died of epilepsy. The associated symptoms, however, were those of delirium tremens, and the treatment which appears to have been adopted in the case was such as is commonly employed in that disease. The epileptiform seizures, of which he had two, occurred three days before his death.

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There were six deaths from apoplexy in the force. Of these two occurred in seamen of the Asia, the one on shore at his residence, and the other in Haslar Hospital.

A fatal case of serous apoplexy occurred in the Steam Reserve at Sheerness. The subject of the attack, a warrant officer, had, until he joined the Reserve, enjoyed a high reputation for his irreproachable character, but it was thought that latterly he had given way to habits of intemperance. This was denied, however, by his relatives, who stated that his symptoms arose from rheumatism of the head. They had on two occasions a striking resemblance to those of delirium tremens. On the first occasion, when first seen, he was found tossing about in bed, very restless, and unable to answer properly any question put to him, his memory appearing altogether to fail him after the first few words, and his speech becoming exceedingly incoherent. His eyes looked wild, and were suffused; the skin was soft and warm, the extremities cold, and the pulse small and soft (110); the tongue was furred, white, and tremulous. His intellect continued clouded for several days, but ultimately he appeared to have recovered and was discharged to duty, after having been about eight days under treatment. A little more than a fortnight afterwards he was again placed on the sick list, complaining of pain in the fore and back part of the head, and of great irritability of stomach, with loss of appetite and sleeplessness. There had been obstinate constipation of the bowels. On the following day it was reported that he had passed a restless night, and he looked a little wild. In the forenoon he suddenly became insensible, and at mid-day his breathing was stertorous, the pupils were fixed and contracted equally; the right side of the body was paralysed, and he had vomited a little. At 2 p.m. the heart's action suddenly ceased, and he expired. On post-mortem examination of the body, the vessels of the scalp and membranes were found to be full of venous blood, and about two ounces of serum were effused under the arachnoid and into the lateral ventricles. An abscess, capable of containing a walnut, was found in the left middle lobe of the brain; it contained a thin ash-coloured fluid.

There can be little doubt that the symptoms, which so closely simulated those of delirium tremens in this case, were almost, if not altogether, attributable to the grave organic lesion which existed in the brain, which was probably the result of long-continued diseased action, and gave rise to the pseudo-rheumatic pains complained of during life. The case is

is instructive as enforcing the necessity, on the part of the medical officer, of exercising the utmost caution in weighing every circumstance, not only in connection with the present condition, but the past history of a patient, before concluding upon a diagnosis which may seriously affect his moral character. A sudden recourse to vicious habits in one who, during a long life, has obtained a well-deserved reputation for high moral character and consistency of conduct, may almost invariably be considered indicative of grave organic cerebral disease.

There was a fatal case of apoplexy in the Fox. The man was found dead in his hammock, to which he had gone the previous night apparently in excellent health. He was a very plethoric subject. A fatal case of apoplexy also appears in the returns from the Indus.

Apoplexy (said to have been induced by impeded respiration and consequent imperfect oxygenation of the blood, the result of œdema glottidis supervening on cynanche) had a fatal termination in a stoker of the Warrior. The following is the history of the case, as narrated by the surgeon of the vessel :—

" This man was brought down to the sick bay about 6.50 a.m., and, when seen at seven, was moaning and breathing with difficulty, the countenance was pale and anxious, and reference was made to the throat as the cause of his suffering. He sat up, but the effort to speak appeared to cause much pain; the pulse was of moderate volume, about 80, and the temperature of the surface was natural. On examination of the fauces there was seen redness, with but little swelling of the tonsils. He coughed up some frothy mucus, tinged with blood, which appeared to afford some relief. A zinc emetic was administered by spoonsful, but was swallowed with some difficulty, from his becoming insensible; there was also a slight convulsion. The evacuation of some frothy mucus and yellow glairy fluid by vomiting appeared to afford relief; a second convulsion came on, and the circulation and respiration ceased suddenly. The trachea was opened at once, and attempts made at artificial respiration, but without success. His death occurred at about 7.25 a.m. On examining the body at 3 p.m., the lungs were found congested, but not so much so as I anticipated; the heart was natural, the right side empty, and the left containing a small quantity of fluid blood. The trachea and larynx did not show signs of disease, except at the rima glottidis, the folds of which were congested and swollen. On removing the calvarium, and dividing the dura mater, a considerable quantity of dark fluid blood escaped; and on

* Surgeon S. S. D. Wells.

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on cutting into the substance of the brain, the red points were unusually numerous and large. The veins of the choroid plexus and velum interpositum were fuller than usual."

Diseases of the Organs of Respiration.—Of 382 cases of inflammatory disease of the lungs or pleura, twenty-one were invalided, and fifteen died; and of 170 cases of phthisis, 117 were invalided, and thirty-two died. With the exception of phthisis and cynanche, which are slightly in excess, the ratio of cases of all kinds of disease of these organs is below that of the previous year.

Diseases of the Heart and Blood Vessels.—There were 200 cases of functional or organic disease of the heart under treatment, of which seventy-one were invalided, and thirteen died. The ratios of cases, of invaliding, and of mortality, are very nearly the same as in the preceding year.

There was a fatal case of aneurism in the person of a petty officer of the Cornwallis. He died in the Royal Marine Infirmary at Woolwich, and the following report of the case is by the Deputy Inspector General* of that establishment:—

"The following is the report of the examination when received here:—Body bent to the left side, left arm rather wasted, and subject to œdema. When in the recumbent position, the effort to raise or turn the body is painful, and the power to do so is exceedingly limited, and he prefers lying on his left side with something pressing on his chest, near the axilla. A tumour is situated between the chest and left scapula, separating the latter to a greater distance than natural from the former. The tumour is roundish, and extends from about the level of the spine of the scapula to near its inferior angle; it is distinctly pulsating, the beats being synchronous with those of the heart; but I cannot detect any bruit in it, or in any part of the cardiac region; the breath sounds are distinctly heard, and those of the heart are extensively heard all over the chest: states that he is subject to sudden accession of pain in the left lower chest, which he compares to the cutting of a knife accompanied with palpitation, sense of distension and suffocation, and the swelling under the left scapula then becomes increased. This paroxysm lasts generally about half an hour. Says that about the month of November he injured himself by carrying the fire engine, and assigns that as being most probably the cause of what he suffers from. The tumour continued to increase in size, separating more the scapula from

* Dr. James Salmon.

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from the trunk, and pulsation became more developed. About the 23d of March, after some continuation of the use of tincture of aconite, he felt much better, and the tumour appeared to decrease in size, and certainly presented a harder feel. This improvement was only temporary, and after more constant and more excruciating pain he died at 8.20 p.m. of the 17th of April.

"*Autopsy.* Fifty hours after death. The surface of the body was more than usually pale. The tumour in the back was somewhat compressed from the position of the body. It measured vertically eight inches, and transversely seven inches. The upper angle of the left scapula was pushed outwards and backwards, its distance from the nearest spinous process of the vertebral column was seven and a half inches, while that of the right side was three and a half inches. On opening the cavity of the chest there was a gush of serum from the left side, and on removing the sternum nearly the whole of the left side of the chest was found filled by a large clot of blood, which was removed whole, and weighed three pounds nine ounces. The lung was compressed against the vertebræ, and reduced to a very small size, and the heart was pushed to the right side. Both lungs were healthy throughout. On removing the clots, left lung, &c., the anterior surface of the tumour was brought into view, being circumscribed, about five and a half inches in diameter, and presenting the appearance of half a sphere, projecting into the chest through the wall, and situated beneath the pleura costalis. Near the lower border of the tumour, in front, was a small ragged opening with thin edges through which the blood had been poured out. On tracing the aorta carefully from its origin, it was found somewhat enlarged from the middle of the arch, increasing to the point of union with the tumour, opposite to the sides of the bodies of the third and fourth dorsal vertebræ, or rather between them. At the point where the tumour and descending aorta united, an incision was made whereby the communication was at once seen. The opening was latero-posterior at the commencement of the descending aorta; it was nearly round, and half an inch in diameter, with thick cartilaginous edges. The tumour was covered in by a dense membrane, which could not be separated from its pleural covering; it contained firm clots of black blood in its circumference, and in the interior black treacly-like fluid, and two or three fragments of roughened bone. The bones of the ribs, and the muscles being destroyed permitted free communication with the back, external to the chest. On dissecting the integument from the posterior surface, no limiting membrane could be discovered; black, firm clots of blood were interposed between the layers of muscles, which were so disorganised as to break down easily under the fingers. On clearing the cavity of the chest, the bodies of the third, fourth, and fifth dorsal vertebræ were found rough to the touch, and partially absorbed; the vertebral canal was laid open between the third and fourth vertebræ. The fifth and sixth ribs, to the extent of three inches from their vertebral articulation, were absorbed, and the roughened ends projected into the body of the tumour; the fourth rib was also rough and carious, but entire at the point of contact with the tumour. The edges of the aortic valves

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were thickened and cartilaginous. The other organs were healthy."

Diseases of the Alimentary Canal.—The ratio of all cases of disease coming under this head is almost the same as in the preceding year. There were four deaths from inflammatory affections of the stomach or bowels, and two from diarrhœa.

Diseases of the Liver.—Of thirty-three cases of inflammatory disease of this organ, five were invalided. Fifty-three cases of jaundice were under treatment, two of which proved fatal. Of the fatal cases, one is said to have been remarkable for its rarity and its well marked symptoms, being a case of acute yellow atrophy of the organ. The other occurred in the person of a boy belonging to the Impregnable, who presented himself with rigors, nausea, and vomiting, lumbar pains, and a jaundiced state of the conjunctiva. The nausea and vomiting continued persistent; he became drowsy, and three days after being placed on the sick list, violently delirious and convulsed. In that state he was sent to Plymouth Hospital, and on admission there, was furiously maniacal, requiring to be held by the attendants. The skin was tinged yellow, and the urine was high coloured. An hour after his admission he became unconscious, with dilated pupils and a weak pulse. During the evening he had three convulsive fits, each lasting about ten minutes. He regained consciousness, but sunk and died on the day following his admission. Post-mortem examination of the body showed the membranes of the brain tinged yellow, and slightly vascular. The liver was small and tough, and its surface and texture variegated in patches of a yellow and purple colour.

Diseases of the Genito-Urinary Organs.—Venereal diseases as usual abounded, and although there was a slight decrease in the ratio of cases of syphilis as compared with the previous year, this disease prevailed to a greater extent than it had done during the six years preceding 1862. The mean ratio of cases of syphilis for the six years terminating in 1861, was 71·5 per 1,000 of mean force; in 1862 it was 108·6, and in the present year it was 104·2. The average number of men daily ineffective from syphilis in 1862 was 212, in 1863 it was 219·4, showing that the disease had rather increased in severity. This fact, indeed, is noticed by some of the

the medical officers. The staff surgeon of the Cumberland, for example, says—

"The primary symptoms in some of the syphilitic cases were of a nature to indicate the very great virulence of the poison, a circumstance which might *à priori* be anticipated from the miserable squalid appearance of the wretched women who are daily seen parading the streets of Sheerness. The chancres showed a tendency to slough in many of the cases, and phymosis and buboes were frequent complications; and it was very remarkable that many patients had ulcers on the body of the penis, a fact, as I think, indicative both of the virulence of the poison, and the filthy habits of the men; and in the other forms of disease resulting from intercourse with these miserable creatures, swelling of the testicles was a very common occurrence.

"In some of the patients it would appear that constitutional syphilis was communicated without the intervention of primary disease; at all events, no primary disease was known or acknowledged to have existed. The symptoms were as various as the cases were numerous: viz., ulcers, warts, condylomata, alopecia, discoloration at the roots of the nails, ulceration of the same, ulcerations of the mouth, fauces, and pharynx; enlargement of the testicle, syphilitic sarcocele, diseases of the periosteum and bones, and a peculiar form of bronchitis. Of the cutaneous affections the squamous or scaly diseases were the most numerous. In one case of a papular and scaly character, a peculiar fetid perspiration marked the initiatory fever. In no other case was this peculiar symptom of constitutional syphilis so well marked, if observed at all."

The staff surgeon of the Excellent says—

"Syphilis in every form, whether primary, secondary, or tertiary, was found. Primary ulcers of every kind were to be seen; some of them apparently simple; others chancrous with hardened bases; others soft, and quickly reproducing others of a similar kind by infection, and others sloughing and phagedenic. Frequently the complication of phymosis and paraphymosis attended, the glands in the groin became involved in the disease, and were converted into a knotty chain, or inflamed and suppurated. In the latter case the abscess was either more or less healthy and disposed to heal, or it put on the character of the ulcer from which it originated, and was inclined to form sinuses, or to burrow in the neighbouring tissues; condylomata were not unfrequent. In the secondary forms of the disease the symptoms were still more varied,—in the nature of the fever that ushered in the attack, in the peculiar affection of the throat which accompanied, and in the character of the eruption which followed. In several instances the tertiary form of the venereal disease showed itself, assuming, however, every complexion. In some patients the whole constitution suffered, and there was a general cachexia of the system; in others rheumatic pains of an obstinate kind, connected either with the osseous or tendinous structures, prevailed in different parts of the body, most frequently in the head, sternum, loins,

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loins, joints, and shins, unhealthy abscesses in the cellular tissue sometimes formed, and iritis was not uncommon as one of the consequences of syphilis."

Of the stationary vessels, those which suffered most from venereal diseases were the Asia, Canopus, Cumberland, Fisgard, Royal Adelaide, and Victory; and of those forming part of the Channel Fleet, the Black Prince, the Defence, the Emerald, the Warrior, and the Edgar.

Wounds and Injuries.—There were ten deaths from fracture of the skull. Of these, six occurred by falls from aloft; one by falling into the hold from the deck; one by falling down a ladder, and in this instance, one of the cervical vertebræ also was fractured; one by falling into an ash-pit, and in one case the skull was fractured by an anchor falling on the head. There were two deaths from fracture of the spine; in one the man fell from aloft, and in the other into a dry dock. One man sustained rupture of the liver, by falling into the hold; one man was killed by an accidental shot; one man sustained accidentally a fatal cutlass wound; and one man was accidentally blown from a gun in a sham fight.

Twenty men were drowned. Of these, eight fell overboard; eight were capsized in boats; two were washed overboard, and the particulars connected with the drowning of two men are not given.

Three men committed suicide by hanging themselves; and one man after a heavy debauch, having attached a small grindstone to his neck, jumped overboard, and was drowned.

The particulars in connection with the deaths of three men and an officer are not given. They occurred when away from their ships. In one instance, that of the officer, it has since been ascertained that he was accidentally killed on a railway.

There were 153 deaths altogether, of which 108 were the result of different forms of disease, and forty-five of wounds and injuries and drowning. The death-rate from disease was 5· per 1,000, that from wounds and injuries and drowning 2·, making the total ratio of mortality 7· per 1,000 of mean force, which is a decrease of 1·2 per 1,000 as compared with the preceding year.

Invalided.—Three men were invalided for the sequelæ of fever; sixty-five for various affections of the brain and nervous

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nervous system, forty-three of these being for epilepsy; one hundred and forty-five for diseases of the organs of respiration, of whom one hundred and seventeen were consumptive; eighty-two for functional or organic diseases of the heart and blood vessels; twelve for diseases of the alimentary canal; five for inflammation of the liver; forty for diseases of the genito-urinary organs, chiefly of venereal origin; seventy-one for rheumatism; fourteen for diseases of the bones and joints; twenty-five for affections of the special senses; forty-nine for diseases of the skin and cellular tissue; thirty-one for dyspepsia and debility; two for dropsy; one for worms; ten for headache; thirty-seven for wounds and injuries of various kinds; and thirty-three for hernia; making altogether 625, or in the ratio of 28·9 per 1,000 of mean force, which is nearly 2· per 1,000 below the invaliding rate of the previous year.

Table, No. 1.

Showing the Number of Cases of all Diseases and Injuries, and the Number Invalided and Dead, with the Ratio per 1,000 of Mean Force.

DISEASE OR INJURY.	Number of Cases.	Ratio per 1,000 of Mean Force.	Number Invalided.	Ratio per 1,000 of Mean Force.	Number Dead.	Ratio per 1,000 of Mean Force.
Continued and Remittent Fever	329	15·2	2	- -	9	·3
Intermittent Fever	127	5·8	1	—	—	—
Small Pox	39	1·8	-	- -	2	—
Measles	43	1·9	—	—	—	—
Scarlatina	159	7·3	-	- -	3	·1
Disease of the Brain	3	·1	7	·3	4	·1
Apoplexy	9	·4	1	- -	6	·2
Epilepsy	86	3·9	43	1·9	4	·1
Paralysis	19	·8	12	·5	—	—
Insanity	18	·8	2	—	—	—
Delirium Tremens	57	2·6	—	—	—	—
Neuralgia	27	1·2	—	—	—	—
Inflammation of the Lungs and Pleura	382	17·7	21	·9	15	·7
Phthisis and Hæmoptysis	170	7·8	117	5·4	32	1·4
Influenza and Catarrh	2,276	105·5	1	—	—	—
Cynanche	1,163	53·9	5	·2	—	—
Asthma	5	·2	1	—	—	—
Functional and Organic Disease of the Heart	200	9·2	71	3·2	13	·6
Hæmorrhoids	61	2·8	—	—	—	—
Varix	22	1·	11	·5	—	—
Aneurism	- -	- -	- -	- -	1	—
Inflammation of the Stomach and Bowels	24	1·1	5	·2	4	·1
Dysentery	34	1·5	4	·1	—	—
Diarrhœa	570	26·4	3	·1	2	—
Cholera	1	—	—	—	—	—
Constipation and Colic	165	7·6	—	—	—	—
Inflammation of the Liver	33	1·5	5	·2	—	—
Jaundice	53	2·4	-	- -	2	—
Splenitis	1	—	—	—	—	—

TABLE, No. 1.—Showing the Number of Cases of all Diseases, &c.—*continued.*

DISEASE OR INJURY.	Number of Cases.	Ratio per 1,000 of Mean Force.	Number Invalided.	Ratio per 1,000 of Mean Force.	Number Dead.	Ratio per 1,000 of Mean Force.
Inflammation of the Bladder and Kidneys	21	·9	3	·1	—	—
Syphilis	2,248	104·2	22	1·	—	—
Gonorrhœa	700	32·4	—	—	—	—
Orchitis	500	23·1	2	—	—	—
Stricture	74	3·4	5	·2	3	·1
Incontinence of Urine, &c.	30	1·3	8	·3	—	—
Rheumatism	1,241	57·5	71	3·2	—	—
Gout	34	1·5	—	—	—	—
Disease of the Bones and Joints	71	3·2	14	·6	1	—
Ophthalmia	322	14·9	8	·3	—	—
Amaurosis and Cataract	18	·8	10	·4	—	—
Otitis and Deafness	55	2·5	7	·3	—	—
Erysipelas	52	2·4	2	- -	2	—
Scrofula	20	·9	12	·5	—	—
Bubo (*Symp.*)	335	15·5	—	—	—	—
Phlegmon and Abscess	3,250	150·6	7	·3	1	—
Ulcer	1,591	73·7	23	1·	1	—
Psora	877	40·6	—	—	—	—
Eruptions, &c.	442	20·4	5	·2	—	—
Dyspepsia and Debility	778	36·	31	1·4	—	—
Scurvy	1	—	—	—	—	—
Dropsy	30	1·3	2	- -	2	—
Worms	22	1·	1	—	—	—
Headache, &c.	110	5·	10	·4	—	—
Purpura	1	—	—	—	—	—
Wounds and Injuries	3,677	170·4	37	1·7	16	·7
Burns and Scalds	162	7·5	—	—	—	—
Hernia	48	2·2	33	1·5	1	—
Drowned	- -	- -	- -	- -	20	·9
Poison	2	—	—	—	—	—
Asphyxia	- -	- -	- -	- -	1	—
Suicide	- -	- -	- -	- -	4	·1
Not stated	- -	- -	- -	- -	4	·1
TOTAL	22,788	1056·4	625	28·9	153	7·

TABLE, No. 2.

SHOWING the Number of DAYS' SICKNESS from each DISEASE, and from INJURIES, the Average Number of Men Sick Daily, with the Ratio per 1,000 of Mean Force.

DISEASE OR INJURY.	Number of Days' Sickness on Board.	Number of Days' Sickness in Hospital.	Total Number of Days' Sickness.	Average Number of Men Sick Daily.	Ratio per 1,000 of Mean Force.
Continued and Remittent Fever	2,080	4,320	6,400	17·5	·7
Intermittent Fever	895	249	1,144	3·1	·1
Small Pox	81	463	544	1·4	—
Measles	86	579	665	1·8	—
Scarlatina	842	2,677	3,519	9·6	·4
Disease of the Brain	15	314	329	·9	—
Apoplexy	150	2	152	·4	—
Epilepsy	658	485	1,143	3·1	·1
Paralysis	-	996	996	2·7	·1
Insanity	46	292	338	·9	—
Delirium Tremens	301	393	694	1·8	—
Neuralgia	178	100	278	·7	—
Inflammation of the Lungs and Pleura	3,335	8,141	11,476	31·4	1·4
Phthisis and Hæmoptysis	2,165	11,033	13,198	36·1	1·6
Influenza and Catarrh	14,565	1,079	15,644	42·8	1·9
Cynanche	7,226	3,256	10,482	28·7	1·3
Asthma	63	69	132	·3	—
Functional and Organic Disease of the Heart	2,543	665	3,208	8·8	·3
Hæmorrhoids	474	685	1,159	3·1	·1
Varix	258	86	344	·9	—
Inflammation of the Stomach and Bowels	224	194	418	1·1	—
Dysentery	318	1,393	1,711	4·6	·2
Diarrhœa	2,313	360	2,673	7·3	·3
Cholera	197	10	207	·5	—
Constipation and Colic	805	234	1,039	2·8	·1
Inflammation of the Liver	431	883	1,314	3·6	·1
Jaundice	596	339	935	2·5	·1
Splenitis	50	61	111	·3	—

TABLE, No. 2.—Showing the Number of Days' Sickness from each Disease, &c.—*cont^d.*

DISEASE OR INJURY.	Number of Days' Sickness on Board.	Number of Days' Sickness in Hospital.	Total Number of Days' Sickness.	Average Number of Men Sick Daily.	Ratio per 1,000 of Mean Force.
Inflammation of the Bladder and Kidneys	206	786	992	2·6	·1
Syphilis	36,895	43,194	80,089	219·4	10·1
Gonorrhœa	9,492	1,900	11,392	31·2	1·4
Orchitis	6,081	2,269	8,350	22·8	1·
Stricture	610	1,154	1,764	4·8	·2
Incontinence of Urine, &c.	194	329	523	1·4	—
Rheumatism	11,262	11,745	23,007	63·	2·9
Gout	389	96	485	1·3	—
Disease of the Bones and Joints	1,089	1,854	2,943	8·	·3
Ophthalmia	2,681	1,749	4,430	12·1	·5
Amaurosis and Cataract	279	227	506	1·3	—
Otitis and Deafness	442	356	798	2·1	—
Erysipelas	457	636	1,093	2·9	·1
Scrofula	284	906	1,190	3·2	·1
Bubo (*Symp.*)	6,283	1,124	7,407	20·2	·9
Phlegmon and Abscess	29,394	4,987	34,381	94·1	4·3
Ulcer	23,402	8,514	31,916	87·4	4·
Psora	6,343	114	6,457	17·6	·8
Eruptions, &c.	4,958	2,573	7,531	20·6	·9
Dyspepsia and Debility	3,076	2,308	5,384	14·7	·6
Scurvy	4	-	4	—	—
Dropsy	276	441	717	1·9	—
Worms	107	39	146	·4	—
Headache, &c.	596	939	1,535	4·2	·1
Wounds and Injuries	37,067	7,828	44,895	123·	5·7
Burns and Scalds	1,980	254	2,234	6·1	·2
Hernia	532	95	627	1·7	—
Poison	5	-	5	—	—
Gangrene	-	53	53	·1	—
TOTAL	225,279	135,828	361,107	989·3	45·8

TABLE, No. 3. - - - - - - - -

SHOWING the Number INVALIDED - - - - - -

CAUSE of INVALIDING.	Ajax.	Alert.	Asia.	Black Prince.	Blenheim.	Boscawen.	Brilliant.	Britannia.	Cambridge.	Canopus.	Colossus.	Columbine.	Cornwallis.	Cumberland.	Dasher.	Dauntless.	Dee.	Defence.	Duke of Wellington.	Edgar.	Edinburgh.	Emerald.	Excellent.	Ferret.	Fisgard.
Continued and Remittent Fever	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1
Intermittent Fever	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Inflammation of the Brain	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	-	-	-	-	-	-	-	-	-	-
Insanity	-	-	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Apoplexy	-	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Epilepsy	-	-	1	4	-	1	-	-	1	2	1	-	1	1	-	1	-	-	2	5	2	-	1	1	2
Paralysis	-	-	1	-	-	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-	-	1	1	-	-
Inflammation of the Lungs	-	-	-	3	-	1	-	-	-	-	-	-	-	1	1	-	-	-	-	-	-	-	3	-	1
Phthisis and Hæmoptysis	2	1	3	3	2	-	-	-	2	2	4	-	2	c 4	-	1	2	1	2	7	-	5	5	-	3
Catarrh	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Cynanche	-	-	-	-	-	-	-	-	-	-	-	-	2	-	-	-	-	2	-	-	-	1	-	-	-
Asthma	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Functional and Organic Disease of the Heart	1	-	2	-	-	-	1	-	-	4	-	-	-	d 7	-	1	1	-	1	-	-	-	9	1	5
Varix	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	-	3	-	-	-	-	1
Inflammation of the Bowels	-	-	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-	1	-	1	-	1	-	-	-
Dysentery	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	-	-	-	-	-	-
Diarrhœa	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1
Disease of the Liver	-	-	-	-	-	-	-	-	-	1	-	-	-	-	-	-	-	-	1	-	-	-	-	-	-
Inflammation of Kidneys and Bladder	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Syphilis	1	-	-	-	-	1	-	-	-	1	-	-	1	1	-	1	-	2	1	2	-	-	-	-	1
Orchitis	-	-	-	1	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Stricture	-	-	-	-	-	-	-	-	-	1	-	-	1	-	-	-	-	1	1	-	-	1	-	-	-
Incontinence of Urine, &c.	-	-	-	-	-	1	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1
Rheumatism	-	-	7	1	e 1	-	-	-	-	-	1	1	1	f 5	2	2	-	5	1	2	-	1	-	-	g 2
Diseases of the Bones and Joints	-	-	1	-	-	-	-	1	-	-	1	-	-	-	-	-	-	-	-	2	-	1	1	-	-
Ophthalmia	-	-	-	-	-	-	-	-	-	2	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-
Amaurosis	-	-	-	-	-	-	-	-	-	-	1	-	-	-	-	1	-	1	-	1	-	1	1	-	-
Deafness	-	-	-	-	-	-	-	-	-	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-	1
Erysipelas	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Scrofula	-	-	-	1	-	-	-	-	-	-	-	-	-	1	-	-	-	-	-	1	-	1	3	-	-
Abscess	-	-	-	-	-	-	-	-	-	-	-	1	-	-	1	1	-	-	-	-	-	-	-	-	1
Ulcer	-	-	2	1	-	2	-	-	-	1	2	-	-	2	-	-	-	-	1	-	1	-	-	-	1
Eruptions	-	-	1	-	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	3
Dyspepsia	-	-	1	-	-	-	-	-	-	-	-	1	-	1	-	-	-	-	-	-	-	-	2	1	-
Headache, &c.	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	-	-	-	-	-	1
Dropsy	-	-	-	-	-	-	-	-	-	-	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-
Worms	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Wounds	-	-	2	-	1	-	-	-	1	-	-	-	-	c 3	-	-	-	2	1	-	-	1	4	-	4
Hernia	-	-	-	2	-	2	-	-	1	3	1	1	1	f 3	-	-	2	-	1	1	-	2	2	-	4
TOTAL	4	2	22	13	4	11	1	2	6	18	11	4	10	31	5	8	5	16	14	25	3	16	32	3	33

a Chorea. *b* Stammering. *c* 1 Naval Barrracks. *d* 5 Naval Barracks.

Table, No. 3.

from each Ship employed on the Home Station.

Formidable.	Fox.	Geyser.	Hannibal.	Hastings.	Hawke.	Hogue.	Implacable.	Impregnable.	Indus.	Liverpool.	Lizard.	Majestic.	Osborne.	Pembroke.	Resistance.	Revenge.	Rhadamanthus.	Royal Adelaide.	Royal Oak.	Russell.	St. Vincent.	Saturn.	Sealark.	Squirrel.	Trincomalee.	Victoria and Albert.	Victory.	Virago.	Warrior.	Wellesley.	Total.
–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	1	–	–	–	–	–	–	–	–	–	2
–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	1	–	–	–	1
1	–	–	–	–	–	–	–	1	1	–	–	–	–	–	1	–	–	–	–	–	–	–	–	–	–	–	–	–	2	1	7
–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	1	2
2	–	–	–	–	–	1	–	–	2	1	–	–	–	1	3	–	1	–	1	–	1	–	–	–	–	–	1	–	–	1	1
1	–	–	–	–	–	–	–	1	2	–	–	–	–	–	a 1	–	–	1	–	1	b 1	–	–	–	–	–	–	–	–	–	12
1	–	–	–	–	–	–	–	7	1	–	–	1	–	–	5	–	–	5	1	–	10	1	1	–	1	–	2	–	–	3	21
2	–	–	3	3	2	1	1	3	5	1	1	2	–	1	5	3	–	5	4	–	10	1	1	1	1	–	8	–	–	3	117
–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	1	–	–	–	–	–	–	1
1	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	5
–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	1
7	–	–	–	–	2	–	1	2	2	–	–	1	–	2	2	1	1	6	1	–	10	–	–	–	–	–	1	1	–	–	71
–	–	–	–	–	–	–	–	1	1	–	–	–	–	–	–	–	1	1	–	–	–	–	–	–	–	–	–	–	–	–	11
–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	1	–	–	–	5
–	–	–	–	–	–	–	–	1	–	–	–	–	–	–	2	–	–	–	–	–	–	–	–	–	–	–	–	–	1	–	4
–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	1	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	3
1	–	–	–	–	–	1	–	–	–	–	–	–	–	–	1	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	5
–	1	–	–	–	–	–	–	–	–	–	–	1	–	–	1	–	–	–	1	–	–	–	–	–	–	–	2	2	1	–	3
–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	3	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	22
–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	2
–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	5
3	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	1	–	–	–	–	–	1	–	–	–	8
2	1	1	–	–	1	–	–	1	2	–	–	–	–	1	12	–	–	1	–	–	5	–	–	–	–	–	10	1	–	1	71
1	–	–	–	–	1	–	–	–	–	–	–	1	–	–	–	–	–	–	–	–	4	–	–	–	–	–	–	–	–	–	14
1	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	3	–	–	–	–	–	1	–	–	–	8
2	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	1	–	–	1	10
1	–	–	–	–	–	–	–	1	1	–	–	1	–	–	–	–	–	–	–	–	–	–	–	–	–	–	1	–	–	–	7
–	–	–	–	–	–	–	–	–	–	–	–	–	1	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	2	2
–	–	–	1	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	3	–	–	–	–	–	–	–	–	–	12
1	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	1	1	–	–	7
1	–	–	–	–	–	–	–	–	1	–	–	1	–	–	–	1	–	–	–	–	1	–	–	–	–	–	3	–	–	–	23
–	–	–	–	–	–	–	1	1	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	5
2	–	–	–	1	1	–	–	3	–	1	–	–	–	1	2	–	–	–	–	–	12	–	–	–	–	–	1	–	–	1	31
2	–	–	1	–	–	–	–	–	1	–	–	–	–	–	–	–	–	–	1	–	2	–	–	–	–	–	2	–	–	–	10
–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	2
1	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	1
2	–	–	–	–	–	–	–	2	3	–	–	–	–	–	2	3	–	1	–	–	–	–	–	–	–	1	3	–	1	–	37
1	–	–	–	–	1	–	1	–	–	–	–	–	–	–	1	1	–	–	1	–	–	–	–	–	–	–	1	–	–	–	33
36	2	1	5	4	10	1	5	25	22	3	1	8	1	6	37	9	3	15	10	1	54	1	1	2	1	1	41	5	3	12	625

e Œdema. *f* 2 Naval Barracks. *g* Gonorrhœal.

Table, No. 4.

Showing the Number of Deaths in each Ship

CAUSE of DEATH.	Ajax.	Asia.	Black Prince.	Blenheim.	Boscawen.	Brilliant.	Britannia.	Canopus.	Colossus.	Columbine.	Cornwallis.	Cumberland.	Dauntless.	Defence.	Edgar.	Edinboro'.	Emerald.
Continued and Remittent Fever	–	–	2	–	–	–	–	–	–	–	–	–	1	–	2	–	–
Small-pox	–	–	–	–	–	–	–	–	–	–	–	a 1	–	–	–	–	–
Scarlatina	–	–	–	–	–	–	2	–	–	–	–	–	–	–	–	–	–
Inflammation of the Brain	–	–	–	–	–	–	–	1	–	–	–	1	–	–	–	–	–
Epilepsy	–	–	–	–	–	–	–	–	–	–	–	–	1	–	–	–	–
Apoplexy	–	2	–	–	–	–	–	–	–	–	–	1	–	–	–	–	–
Inflammation of the Lungs	–	2	–	–	–	–	–	1	–	–	–	4	–	–	–	–	–
Phthisis	–	4	2	–	–	1	1	–	–	1	1	–	–	2	1	–	–
Disease of the Heart	–	–	1	2	–	–	–	–	–	–	–	–	–	–	–	–	–
Aneurism	–	–	–	–	–	–	–	–	–	–	1	–	–	–	–	–	–
Diseases of the Stomach and Bowels	–	–	–	–	–	–	1	–	–	–	–	–	–	–	–	–	–
Diarrhœa	1	–	–	–		–	–	–	–	–	–	–	–	–	–	–	–
Jaundice	–	1	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Stricture	–	2	–	–	–	–	–	–	–	–	1	–	–	–	–	–	–
Disease of the Bones and Joints	–	–	–	–	–	–	–	–	1	–	–	–	–	–	–	–	–
Erysipelas	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Phlegmon and Abscess	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Ulcer	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Dropsy	–	–	–	–	–	1	–	–	–	–	–	1	–	–	–	–	–
Hernia	–	–	–	1	–	–	–	–	–	–	–	–	–	–	–	–	–
Asphyxia	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	1	–
Wounds and Injuries	–	1	2	1	1	–	–	–	1	–	1	1	–	2	–	–	–
Drowned	–	–	1	4	–	–	–	–	–	2	2	–	1	1	–	–	1
Suicide	–	–	1	–	–	–	–	–	–	–	1	1	–	–	–	–	–
Not stated	1	1	–	–	1	–	–	–	–	–	–	–	–	–	1	–	–
Total	2	13	9	8	2	2	4	2	2	3	7	10	3	5	4	1	1

a In Naval Barracks.

Table, No. 4.

employed on the Home Station.

Excellent.	Fisgard.	Fox.	Geyser.	Hannibal.	Hastings.	Hogue.	Implacable.	Impregnable.	Indus.	Jackal.	Lizard.	Majestic.	Pembroke.	Resistance.	Revenge.	Royal Adelaide.	Royal Oak.	Russell.	Saturn.	Victory.	Warrior.	Wellesley.	Total.
–	–	–	1	–	–	–	–	–	–	1	1	–	–	–	–	–	–	–	–	–	–	1	9
–	–	–	–	–	–	1	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	2
–	–	–	–	–	–	–	1	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	3
–	–	–	–	–	–	–	–	2	–	–	–	–	–	–	–	–	–	–	–	–	–	–	4
–	–	–	–	–	1	–	–	–	1	–	–	–	1	–	–	–	–	–	–	–	–	–	4
–	–	1	–	–	–	–	–	–	1	–	–	–	–	–	–	–	–	–	–	–	1	–	6
–	–	–	–	–	–	1	–	–	4	–	1	–	–	–	–	.	–	1	–	–	1	–	15
–	–	–	–	1	1	2	–	1	3	–	–	1	–	2	3	1	–	–	–	3	–	1	32
1	2	–	–	–	–	1	–	–	3	–	–	1	–	–	–	–	–	–	1	1	–	–	13
–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	1
–	–	–	–	–	–	–	–	–	1	–	–	–	–	–	–	–	1	–	–	–	–	1	4
1	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	2
–	–	–	–	–	–	–	–	1	–	–	–	–	–	–	–	–	–	–	–	–	–	–	2
–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	3
–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	1
a 1	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	1	–	–	2
–	–	*b* 1	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	1
–	1	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	1
–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	2
–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	1
–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	1
–	–	–	–	–	–	1	1	–	–	1	–	1	1	1	–	–	–	–	–	–	–	–	16
–	1	–	–	–	–	–	–	–	3	–	–	3	–	–	–	–	–	–	–	–	–	1	20
–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	*c* 1	–	–	4
–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	4
3	4	2	1	1	2	6	2	4	16	2	2	6	2	3	3	1	1	1	1	6	2	4	153

a Phlegmonous. *b* Psoas. *c* By hanging.

Table, No. 5.

Showing the Names of the Ships; the Average Complement and the Mean Force; the Number of Cases; the Total Number of Days' Sickness on Board, and the Average Number of Men Sick Daily, in each Ship.

C. Commissioned. P. O. Paid off. C. S. Station changed.

RATE.	NAME OF SHIP.	Where Commissioned.	When Commissioned.	Number of Guns.	Tonnage.	Horse Power.	Period.	Average Complement.	Complement Corrected for Time.	Number of Cases.	Number of Days' Sickness on Board.	Average Number of Men Sick Daily.	Ratio per 1,000 of Mean Force of each Ship.	Number Discharged to Hospital.
Ironclads	Black Prince	Woolwich	1 Aug. 1861	40	6,109	S.1,250	year	670	670	1,047	9,531	26·1	38·9	97
	Defence	Chatham	4 Dec. 1861	16	3,270	S. 600	year	450	450	732	7,434	20·3	45·1	74
	Resistance	Sheerness	2 July 1862	16	3,710	S. 600	year	480	480	510	6,177	16·9	35·2	54
	Royal Oak — C.	Chatham	27 April 1863	35	4,056	S. 800	27 Apr. to 31 Dec.	580	385	662	7,884	21·5	55·8	74
	Warrior	Woolwich	1 Aug. 1861	40	6,109	S.1,250	year	740	740	916	12,750	34·9	47·1	116
First Rate, Training Ship for Cadets.	Britannia	Portsmouth	1 Jan. 1859	8	2,616	–	year	400	400	621	3,835	10·5	26·2	126
Second Rates	Asia	Portsmouth	1 April 1862	–	2,289	–	year	1,780	1,780	884	7,265	19·9	11·2	187
	Edgar — C. S.	Portsmouth	11 July 1862	71	3,094	S. 600	1 Apr. to 31 Dec.	760	570	819	7,924	21·6	37·8	97
	Excellent	Portsmouth	1 Jan. 1859	–	2,311	–	year	920	920	981	7,912	21·6	23·4	233
	Formidable	Sheerness	3 July 1860	26	2,289	–	year	245	245	611	3,928	10·7	43·6	52
	Revenge — C. S.	Portsmouth	1 May 1861	73	3,322	S. 800	1 Jan. to 30 June	845	420	480	5,752	15·7	37·3	46
Third Rates	Cambridge	Devonport	1 Mar. 1862	78	2,139	–	year	660	660	683	6,397	17·5	26·5	57
	Cumberland — Naval Barracks — D.	Sheerness	1 Oct. 1859	24	2,214	–	year	1,000	1,000	816	11,934	3·26	32·6	80
		–	–	–	–	–	From 23 Feb. to 31 Dec.	200	160	245	3,194	8·7	54·3	7
	Indus	Devonport	14 July 1860	–	2,098	–	year	1,460	1,460	679	6,992	19·1	13·	82
Fourth Rates	Emerald — P. O.	Sheerness	14 May 1859	39	2,656	S. 600	1 Jan. to 1 Nov.	510	440	595	7,888	21·5	48·8	83
	Liverpool — C.	Devonport	30 April 1863	39	2,656	S. 600	1 May to 31 Dec.	550	375	554	4,560	12·4	33·	24
Fifth Rate	Fisgard	Woolwich	1 Jan. 1863	42	1,069	–	year	535	535	628	2,973	8·1	15·1	164
Drill Ships	Active — C.	Chatham	8 May 1863	20	1,627	–	10 June to 31 Dec.	35	20	12	108	·2	10·	–
	Brilliant	Woolwich	1 April 1862	16	954	–	year	30	30	19	237	·6	20·	2
	Castor	Chatham	1 April 1862	22	1,293	–	year	65	65	27	583	1·5	23·	1

	Dædalus - - - -	Devonport -	1 April 1862	16	1,082	–	year - - -	30	30	34	210	·5	16·6	1
	Eagle - - - -	Liverpool -	1 July 1862	16	1,723	–	year - - -	30	30	12	89	·2	6·6	–
	President - - - -	Woolwich -	1 April 1862	16	1,537	–	year - - -	40	40	27	247	·6	15·	–
	Saturn - - - -	Pembroke -	1 Jan. 1863	–	1,616	–	year - - -	70	70	47	402	1·1	15·7	–
	Trincomalee - - -	Chatham -	1 April 1862	16	1,066	–	year - - -	30	30	25	423	1·1	36·6	–
	Winchester - - - -	Liverpool -	1 July 1862	12	652	–	year - - -	30	30	16	227	·6	20·	–
Steam Guard Ships	Ajax - - - -	Devonport -	1 Feb. 1858	60	1,761	S. 450	year - - -	340	340	290	4,588	12·5	36·7	13
	Blenheim - - - -	Portsmouth	12 June 1860	60	1,822	S. 450	year - - -	405	405	331	4,831	13·2	32·5	8
	Colossus - - - -	Portsmouth	12 June 1860	80	2,590	S. 400	year - - -	300	300	319	4,121	11·2	37·3	55
	Cornwallis - - - -	Devonport -	4 Dec. 1856	60	1,809	S. 200	year - - -	230	230	382	5,217	14·2	61·7	32
	Dauntless - - - -	Portsmouth	28 Aug. 1859	31	1,575	S. 580	year - - -	210	210	155	1,568	4·2	20·	11
	Edinburgh - - - -	Sheerness -	1 Mar. 1858	60	1,772	S. 450	year - - -	400	400	295	4,054	11·1	27·7	3
	Hastings - - - -	Liverpool -	1 July 1862	50	1,760	S. 200	year - - -	220	220	139	1,085	2·9	13·1	19
	Hawke - - - -	Sheerness -	18 Dec. 1856	60	1,754	S. 200	year - - -	380	380	289	2,548	6·9	18·1	49
	Hogue - - - -	Devonport -	1 Mar. 1858	60	1,846	S. 450	year - - -	380	380	246	2,439	6·6	17·3	39
	Majestic - - - -	Sheerness -	1 Feb. 1860	80	2,566	S. 400	year - - -	345	345	481	4,280	11·7	33·9	8
	Pembroke - - - -	Sheerness -	1 Mar. 1858	60	1,758	S. 200	year - - -	310	310	322	3,739	10·2	32·9	23
	Russell - - - -	Sheerness -	1 Jan. 1859	60	1,751	S. 200	year - - -	300	300	159	2,370	6·4	21·3	2
Training Ships -	Implacable - - -	Devonport -	12 July 1860	18	1,882	–	year - - -	410	410	514	5,756	15·7	38·2	50
	Impregnable - - -	Devonport -	1 Jan. 1862	78	2,406	–	year - - -	650	650	731	3,629	9·9	15·2	104
	St. Vincent - - -	Portsmouth	1 Jan. 1862	26	2,612	–	year - - -	500	500	983	12,068	33·	66·	160
	Wellesley - - - -	Chatham -	1 Jan. 1862	72	1,746	–	year - - -	480	480	212	1,893	5·1	10·6	59
	Boscawen - - - -	Southampton	5 Mar. 1862	20	2,213	–	year - - -	380	380	320	4,670	12·7	33·4	17
Steam Vessels -	Dasher - - - -	Portsmouth	1 Jan. 1863	2	260	P. 100	year - - -	110	110	151	1,144	3·1	28·1	7
	Jackal - - - -	Woolwich -	11 April 1859	4	340	P. 150	year - - -	60	60	26	576	1·5	25·	1
	Lizard - - - -	Sheerness -	2 July 1860	3	340	P. 150	year - - -	45	45	33	301	·8	17·7	3
	Medusa - - - -	Sheerness -	1 Sept. 1863	–	889	P. 312	1 Sept. to 31 Dec.	55	20	25	269	·7	35·	3
Yachts - - -	Osborne - - - -	Portsmouth	3 May 1859	2	1,034	P. 430	year - - -	85	85	87	554	1·5	17·6	14
	Victoria and Albert - -	Portsmouth	1 Mar. 1860	2	2,345	P. 600	year - - -	180	180	102	975	2·6	14·4	26
Sloops - -	Alert - - - - C.	Devonport -	14 May 1863	17	751	S. 100	14 May to 31 Dec.	175	100	185	1,673	4·5	45·	6
	Columbine - - - C.	Sheerness -	13 May 1863	4	672	S. 150	14 May to 31 Dec.	120	70	135	752	2·	28·5	10
	Geyser - - - -	Devonport -	23 June 1860	6	1,054	P. 280	year - - -	170	170	227	3,150	8·6	50·5	21
	Virago - - C. S.	Sheerness -	29 July 1861	6	1,059	P. 300	1 Jan. to 30 Sept.	170	125	261	3,359	9·2	73·6	44
Receiving Ships -	Canopus - - - C.	Devonport -	1 April 1863	8	2,257	–	6 Feb. to 31 Dec.	335	305	453	4,431	12·1	39·6	89
	Duke of Wellington - C.	Portsmouth	1 May 1863	16	3,771	S. 700	1 May to 31 Dec.	515	365	367	2,829	7·7	21·	80
	Royal Adelaide - - -	Devonport -	1 Jan. 1862	26	2,446	–	year - - -	400	400	431	4,515	12·3	30·7	116
	Victory - - - -	Portsmouth	1 Jan. 1862	12	2,164	–	year - - -	565	565	829	4,770	13·	23·	231
Brigs - - -	Ferret - - - -	- - -	19 May 1859	8	358	–	year - - -	115	115	169	1,028	2·8	24·3	52
	Sealark - - - -	- - -	10 Mar. 1857	8	319	–	year - - -	75	75	77	696	1·9	25·3	11
	Squirrel - - - -	- - -	- - -	8	428	–	year - - -	340	340	107	707	1·9	5·5	3
Store Ships - -	Dee - - - - C.	Woolwich -	12 June 1863	1	704	P. 220	12 June to 31 Dec.	70	30	49	474	1·2	40·	8
	Fox - - - -	Portsmouth	22 Feb. 1862	2	1,131	S. 200	year - - -	100	100	184	1,190	3·2	32·	14
	Rhadamanthus - P. O.	Woolwich -	1 Jan. 1863	4	813	P. 220	1 Jan. to 10 June	70	35	40	374	1·	28·5	5

TABLE, No. 6.

SHOWING the Number of CASES of all DISEASES and

DISEASE OR INJURY.	Active.	Ajax.	Alert.	Asia.	Black Prince.	Blenheim.	Boscawen.	Brilliant.	Britannia.	Cambridge.	Canopus.	Castor.	Colossus.	Columbine.	Cornwallis.	Cumberland.	Dædalus.	Dasher.	Dauntless.
Continued and Remittent Fever	–	–	11	1	22	2	5	–	5	3	10	3	3	3	1	14	1	3	3
Intermittent Fever	–	–	3	7	9	–	–	–	–	8	–	–	1	2	1	4	–	2	4
Small Pox	–	–	–	–	–	–	–	–	–	–	–	–	–	–	3	4	–	–	–
Scarlatina	–	–	–	–	2	–	–	–	24	–	–	–	–	–	–	–	–	–	1
Measles	–	–	–	–	–	–	–	–	*b* 1	1	–	–	–	–	–	–	–	–	–
Inflammation of the Brain	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Apoplexy	–	–	–	3	–	–	1	–	–	1	–	–	–	–	–	1	–	–	–
Epilepsy	–	1	–	2	8	–	1	–	3	3	3	–	1	–	–	6	–	–	–
Insanity	–	1	–	3	–	–	–	–	–	–	1	–	–	–	–	–	–	–	–
Delirium Tremens	–	–	–	2	3	1	–	–	1	1	–	–	–	–	–	6	–	–	–
Paralysis	–	–	–	–	–	–	–	–	–	1	–	–	–	–	–	–	–	–	1
Neuralgia	–	–	–	–	1	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Inflammation of the Lungs and Pleura	2	9	1	14	13	8	4	–	16	14	6	1	4	–	4	23	1	4	1
Phthisis and Hæmoptysis	–	1	2	3	6	1	–	3	1	5	4	–	3	2	5	6	–	1	1
Catarrh	1	29	1	113	163	37	28	2	30	66	37	–	8	3	48	87	5	20	16
Cynanche	2	7	7	30	38	–	–	–	*d* 169	17	8	–	23	5	22	49	3	3	16
Asthma	–	–	–	1	–	–	–	2	–	–	–	–	–	–	–	–	–	–	–
Functional and Organic Disease of the Heart	–	2	–	*e* 5	3	1	–	–	–	2	5	–	3	–	*e* 1	27	–	–	1
Hæmorrhoids	–	–	2	6	–	1	1	–	–	3	1	–	1	–	1	4	–	–	1
Varix	–	–	–	–	1	–	–	–	–	–	1	–	–	–	1	1	–	–	1
Phlebitis	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Inflammation of the Stomach and Bowels	–	*f* 3	–	–	*g* 1	–	1	–	2	1	–	–	*g* 2	–	–	*g* 1	1	–	–
Dysentery	–	–	–	3	–	–	–	–	–	2	–	2	–	–	–	–	–	–	2
Diarrhœa	–	9	2	23	20	7	10	2	4	23	9	1	5	10	10	13	1	9	1
Cholera	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Constipation and Colic	1	–	1	2	1	1	–	–	–	5	1	–	3	–	3	12	–	2	2
Inflammation of the Liver	–	1	–	5	1	–	–	–	–	1	1	–	–	–	–	–	–	1	–
Jaundice	–	–	–	1	–	–	2	–	–	–	–	–	–	–	2	1	–	–	–
Splenitis	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Inflammation of the Kidneys and Bladder	–	–	1	–	–	–	–	–	–	–	–	–	–	–	–	2	–	–	–
Syphilis	–	22	24	140	98	30	10	–	17	71	95	5	39	3	60	118	–	9	22
Gonorrhœa	–	5	2	23	20	6	–	–	7	26	37	1	42	1	23	89	–	16	1
Orchitis	–	7	2	24	32	10	2	–	10	14	18	–	7	2	12	14	–	5	2
Stricture	–	1	–	8	2	1	1	–	1	3	1	–	2	1	8	–	–	–	–
Incontinence of Urine, &c.	–	–	–	3	–	–	2	–	–	1	1	–	1	–	–	–	–	–	–
Rheumatism	1	28	12	90	52	14	6	1	34	35	28	4	19	7	18	38	11	19	13
Gout	–	–	2	8	–	–	–	–	1	2	1	1	–	–	–	–	1	–	–
Disease of the Bones and Joints	–	4	–	–	–	1	–	–	–	1	–	–	2	–	–	4	–	–	–
Inflammation of the Eyes	–	2	3	18	16	8	3	–	13	8	8	–	3	1	3	14	1	1	–
Amaurosis and Cataract	–	–	1	–	1	–	–	–	–	–	1	–	–	–	1	–	–	–	1
Otitis and Deafness	–	–	1	–	–	–	–	–	6	–	–	–	1	2	1	–	–	–	–
Erysipelas	–	–	–	–	3	–	–	–	1	4	1	–	1	–	–	2	–	–	2
Scrofula	–	–	–	–	–	–	–	–	–	2	–	–	–	1	1	1	–	–	1
Bubo (*Symp.*)	–	1	1	6	22	3	4	–	4	9	30	1	9	–	9	22	–	1	5
Phlegmon and Abscess	1	39	45	100	180	64	61	–	113	75	45	–	34	27	50	89	2	9	17
Ulcer	–	22	14	45	66	12	63	–	13	14	22	–	14	14	16	65	–	9	6
Psora	–	26	4	63	47	2	22	–	18	53	8	–	7	2	11	68	1	1	2
Eruptions, &c.	–	7	2	11	21	8	7	4	14	15	4	–	6	4	3	25	1	–	1
Dyspepsia and Debility	1	13	11	23	25	40	13	3	19	67	1	–	5	12	10	79	–	1	7
Purpura	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Scurvy	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	1	–	–	–
Headache, &c.	1	2	3	–	–	2	1	–	27	–	3	–	–	–	2	2	1	10	–
Dropsy	–	–	–	–	–	–	7	–	–	–	1	1	1	–	–	2	1	–	1
Worms	–	–	–	–	–	–	–	1	–	1	–	–	–	–	–	–	–	–	1
Wounds and Injuries	2	48	24	97	161	64	59	1	63	123	56	7	67	29	47	155	2	25	22
Burns and Scalds	–	–	3	1	8	6	3	–	4	1	2	–	2	4	3	7	–	–	–
Hernia	–	–	–	–	1	1	3	–	–	1	3	–	1	1	1	4	1	–	–
Poison	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
TOTAL	12	290	185	884	1,047	331	320	19	621	683	453	27	319	135	382	1,061	34	151	155

a Varicella. *b* 1 Roseola. *c* 2 Roseola. *d* 96 Mumps. *e* 1 Anæmia. *f* Melæna.

Table, No. 6.

Injuries in each Ship on the Home Station.

Dec.	Defence.	Duke of Wellington.	Eagle.	Edgar.	Edinburgh.	Emerald.	Excellent.	Ferret.	Fisgard.	Formidable.	Fox.	Geyser.	Hastings.	Hawke.	Hogue.	Implacable.	Impregnable.	Indus.	Jackal.	Liverpool.	Lizard.	Majestic.	Medusa.	Osborne.	Pembroke.
1	–	3	–	22	–	4	5	2	11	–	11	1	4	1	5	2	13	7	3	2	–	1	2	1	1
–	–	5	–	4	–	1	9	4	10	4	–	–	–	2	5	–	–	7	–	–	–	4	1	4	5
–	–	1	–	1	1	1	1	–	4	1	–	–	1	1	11	–	*a* 3	2	–	–	–	–	–	–	–
–	–	–	–	1	–	–	10	–	–	–	–	–	–	–	–	24	5	1	–	–	–	–	–	–	3
–	–	–	–	*b* 10	–	–	6	–	1	–	–	–	–	1	2	*c* 1	18	–	–	–	–	1	–	–	–
–	–	1	–	–	–	–	2	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
–	1	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	1	–	–	–	–	–	–	–
–	–	2	–	9	3	–	3	1	4	3	–	1	2	–	–	1	2	7	–	4	–	–	–	–	2
–	–	–	–	–	–	–	–	–	1	1	–	1	1	–	–	–	–	2	–	–	–	–	–	–	–
–	2	–	–	–	1	1	3	–	10	–	2	3	–	–	–	–	–	1	–	–	–	4	–	–	1
–	1	–	–	–	–	–	2	–	1	2	–	1	–	–	–	–	1	3	1	–	–	1	–	–	–
1	1	1	–	1	–	–	–	–	2	3	–	–	–	–	–	–	–	–	–	–	1	1	–	–	1
1	–	4	–	13	6	8	19	2	6	3	–	2	2	8	4	8	23	26	2	6	2	10	2	1	2
1	7	2	2	8	–	1	11	1	4	–	1	–	5	4	4	1	4	9	–	2	1	6	–	–	6
9	44	29	3	45	41	61	83	17	84	61	20	33	11	43	58	27	103	93	–	73	2	54	2	16	37
4	41	12	–	29	12	46	70	6	–	20	2	9	6	–	8	44	107	24	–	25	1	17	–	2	14
–	–	–	–	–	–	–	–	–	–	1	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
2	–	1	–	5	1	–	34	1	7	15	1	–	1	1	3	–	7	2	–	4	–	2	–	–	–
–	3	–	–	3	2	1	1	–	4	1	1	1	1	–	–	–	–	–	–	–	–	1	–	–	–
–	1	–	–	3	–	–	–	–	2	1	1	–	–	–	–	–	1	1	–	–	–	–	–	–	3
–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
–	3	–	–	*g* 1	–	1	*g* 1	–	–	–	–	–	–	–	–	–	–	1	–	–	–	–	–	–	–
–	–	2	–	1	–	–	–	–	1	–	–	–	1	1	2	–	–	1	–	–	–	–	–	–	–
1	9	6	2	12	10	9	47	4	*h* 30	21	9	16	2	10	–	4	31	27	–	13	2	38	–	2	2
–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
–	2	2	–	5	1	1	16	3	–	11	1	–	–	1	–	1	6	5	1	5	1	7	–	–	2
–	2	2	–	–	–	1	3	–	1	1	–	–	–	1	–	–	2	2	–	–	–	–	–	–	–
2	1	1	–	3	–	1	3	–	1	3	–	1	–	1	–	3	13	1	1	–	1	3	–	1	–
–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
–	–	1	–	4	–	2	2	–	–	–	–	1	–	1	–	–	–	–	4	–	*i* 1	–	–	–	1
–	98	77	–	115	23	119	92	–	121	41	15	25	9	11	31	2	3	86	4	40	4	29	6	5	32
–	27	11	–	26	9	8	25	–	19	23	1	3	3	2	15	3	6	29	–	4	–	14	–	–	9
3	27	13	–	17	8	20	22	–	10	16	8	4	8	5	–	1	1	23	–	12	–	10	2	2	11
–	1	4	–	4	2	5	3	1	1	–	4	–	2	3	2	–	–	2	–	1	–	–	–	–	1
–	1	–	–	1	–	–	1	–	1	6	–	–	–	–	1	–	–	1	–	2	–	1	–	–	–
9	36	20	2	72	7	32	67	2	23	37	11	13	8	10	5	11	15	53	2	35	4	25	2	11	11
–	–	–	–	–	2	–	–	–	2	4	–	–	–	–	–	1	–	4	–	–	–	–	–	–	–
–	5	–	–	7	–	1	7	1	–	1	–	–	–	1	–	2	2	2	–	–	1	1	–	1	2
–	12	2	–	5	–	*k* 8	17	37	5	12	2	4	4	6	1	3	12	10	–	6	1	6	–	–	7
–	1	1	–	1	–	–	2	–	–	2	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
–	–	–	–	1	–	–	8	1	2	1	–	–	–	–	–	1	4	1	–	1	–	1	–	–	1
–	–	1	–	2	–	1	5	1	3	2	–	–	1	1	–	–	–	–	–	8	–	2	–	–	–
–	–	–	–	–	–	1	4	–	2	–	–	–	–	1	–	–	–	1	–	–	–	–	–	–	–
1	10	9	–	20	2	5	16	–	6	10	1	2	1	6	–	2	3	4	–	11	1	10	–	4	15
2	128	*m* 45	–	127	68	104	131	36	43	97	17	37	14	44	6	106	81	56	4	131	5	53	3	7	46
–	41	26	2	62	17	24	55	12	50	67	4	10	6	19	9	109	20	35	3	56	2	52	–	5	9
2	5	3	–	23	1	2	1	1	46	20	12	1	–	3	–	24	110	10	–	16	–	7	–	–	7
2	3	9	–	31	2	8	27	2	17	5	–	2	3	6	2	10	16	5	–	7	–	9	–	1	2
1	21	1	–	16	24	24	22	4	7	10	6	–	9	12	–	8	26	25	–	3	–	39	–	1	29
–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
–	1	3	–	2	–	1	–	2	1	6	–	2	–	–	–	1	2	4	–	2	–	–	–	2	–
–	–	4	–	–	–	–	2	–	2	–	–	–	–	1	–	–	1	–	–	–	–	–	–	–	–
–	–	1	–	–	–	–	1	–	–	8	–	–	–	1	–	–	*l* 2	–	–	2	–	–	–	1	1
5	191	58	–	100	50	87	126	27	77	85	52	51	31	74	70	110	80	101	5	81	3	68	4	19	57
–	8	1	–	5	–	4	12	1	2	4	2	3	3	6	2	3	8	3	–	4	–	1	1	1	–
2	–	1	–	2	1	2	3	–	4	2	–	–	–	1	–	1	–	1	–	–	–	1	–	–	1
–	–	–	–	–	1	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	1	–	–	–
49	732	367	12	819	295	595	981	169	628	611	184	227	139	289	246	514	731	679	26	554	33	481	25	87	322

continued on page 38.

g Hæmatemesis. *h* 3 English Cholera. *i* Hæmaturia. *k* Gonorrhœal. *l* 1 Guinea Worm. *m* 1 Anthrax.

TABLE, No. 6.—Showing the Number of Cases of all Diseases and Injuries, &c.—*continued.*

DISEASE OR INJURY.	President.	Resistance.	Revenge.	Rhadamanthus.	Royal Adelaide.	Royal Oak.	Russell.	St. Vincent.	Saturn.	Sealark.	Squirrel.	Trincomalee.	Victoria and Albert.	Victory.	Virago.	Warrior.	Wellesley.	Winchester.	TOTAL.
Continued and Remittent Fever	–	2	17	–	7	6	3	68	–	–	2	1	–	17	3	1	10	–	329
Intermittent Fever	–	3	1	–	3	–	2	–	–	–	–	–	4	–	–	2	6	–	127
Small Pox	–	–	–	–	*a* 1	–	–	1	–	–	–	–	–	–	–	1	1	–	39
Scarlatina	–	–	–	–	–	–	–	86	–	–	1	–	–	1	–	–	–	–	159
Measles	–	–	–	–	–	*b* 1	–	–	–	–	–	–	–	–	–	–	–	–	43
Inflammation of the Brain	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	3
Apoplexy	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	1	–	–	9
Epilepsy	–	6	1	1	–	–	1	3	–	–	1	–	–	1	–	–	–	–	86
Insanity	–	1	1	–	–	1	–	1	–	–	–	–	–	–	–	–	3	–	18
Delirium Tremens	–	1	2	–	1	2	1	1	–	–	–	–	–	5	1	–	1	–	57
Paralysis	–	–	–	–	1	1	1	–	–	–	–	–	–	–	1	–	–	–	19
Neuralgia	1	–	4	–	–	2	–	4	–	–	–	–	–	–	–	1	2	–	27
Inflammation of the Lungs and Pleura	–	12	–	2	4	12	4	8	1	–	4	2	3	33	3	8	–	1	382
Phthisis and Hæmoptysis	1	2	7	–	4	5	–	10	1	1	–	–	–	8	–	3	3	1	170
Catarrh	12	58	80	7	34	48	18	88	11	6	4	5	14	64	18	56	6	4	2,276
Cynanche	2	14	5	–	7	25	10	41	1	2	8	1	13	67	8	52	8	1	1,163
Asthma	–	–	–	–	–	–	–	1	–	–	–	–	–	–	–	–	–	–	5
Functional and Organic Disease of the Heart	–	2	5	1	18	5	–	20	1	–	–	–	–	7	1	3	–	–	200
Hæmorrhoids	–	2	1	–	1	3	1	–	3	–	–	–	1	2	–	7	–	–	61
Varix	–	–	–	1	3	–	–	–	–	–	–	–	–	–	–	–	–	–	22
Phlebitis	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Inflammation of the Stomach and Bowels	–	–	–	–	*c* 1	–	–	2	–	–	–	1	–	–	–	–	*c* 1	–	24
Dysentery	–	1	–	–	–	–	–	12	–	–	–	–	–	–	–	–	3	–	34
Diarrhœa	3	10	18	–	9	5	4	–	7	–	1	2	1	14	13	12	5	–	570
Cholera	–	–	–	–	1	–	–	–	–	–	–	–	–	–	–	–	–	–	1
Constipation and Colic	–	9	3	–	1	3	7	6	2	1	–	–	9	3	2	11	2	1	165
Inflammation of the Liver	–	3	1	–	–	–	–	1	–	–	–	1	–	–	1	1	–	–	33
Jaundice	–	1	–	–	–	1	–	1	–	–	2	–	–	1	–	1	–	–	53
Splenitis	–	1	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	1
Inflammation of the Kidneys and Bladder	1	–	–	–	*d* 1	–	–	1	1	–	–	–	–	–	1	–	–	–	21
Syphilis	1	38	36	3	80	71	14	1	–	–	–	–	2	111	30	96	14	–	2,248
Gonorrhœa	–	6	5	–	34	16	–	2	–	–	–	–	1	64	11	25	–	–	700
Orchitis	1	16	9	2	8	4	6	6	–	–	–	–	–	14	3	39	7	1	500
Stricture	–	–	1	–	–	1	–	2	–	–	–	–	1	1	–	2	–	–	74
Incontinence of Urine, &c.	–	1	–	–	–	–	–	3	–	–	–	–	–	2	1	–	–	–	30
Rheumatism	1	57	29	7	16	28	5	12	2	2	1	1	9	39	5	54	18	2	1,241
Gout	–	–	–	–	–	–	–	4	–	–	–	–	1	–	–	–	–	–	34
Disease of the Bones and Joints	–	2	–	–	2	4	4	1	–	–	–	1	–	4	3	3	1	–	71
Inflammation of the Eyes	–	5	3	–	7	11	3	5	–	–	1	–	2	10	1	6	6	–	322
Amaurosis and Cataract	–	–	–	–	*e* 1	–	–	3	–	–	1	–	–	–	–	–	1	–	18
Otitis and Deafness	–	–	–	–	1	2	–	9	–	1	–	–	–	6	–	3	–	–	55
Erysipelas	–	–	–	–	2	–	–	3	–	–	–	–	–	3	2	–	1	–	52
Scrofula	–	–	–	–	1	–	–	4	–	–	–	–	–	–	–	–	–	–	20
Bubo (*Symp.*)	–	14	8	–	11	11	–	–	–	1	–	–	–	7	6	8	3	–	335
Phlegmon and Abscess	2	118	76	4	35	113	26	155	4	19	33	4	7	65	47	174	24	2	3,250
Ulcer	–	18	33	–	31	53	9	139	2	13	12	2	2	68	9	97	13	–	1,591
Psora	1	–	1	3	33	67	14	40	–	2	11	–	2	50	6	1	17	–	877
Eruptions, &c.	–	9	6	–	8	9	2	30	–	4	2	–	1	36	9	21	3	–	442
Dyspepsia and Debility	–	14	12	2	9	14	–	27	–	2	3	2	7	32	12	12	11	1	778
Purpura	–	–	–	–	1	–	–	–	–	–	–	–	–	–	–	–	–	–	1
Scurvy	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	1
Headache, &c.	–	*f* 2	1	–	–	3	–	4	–	4	–	–	–	2	1	10	–	–	110
Dropsy	–	–	2	–	–	–	1	–	–	–	–	–	–	1	–	1	1	–	30
Worms	–	–	–	–	–	–	–	1	–	–	1	–	–	–	–	–	–	–	22
Wounds and Injuries	1	81	106	6	52	131	21	167	8	19	19	2	21	82	61	196	39	1	3,677
Burns and Scalds	–	1	5	–	–	3	1	10	2	–	–	–	1	7	2	8	2	1	162
Hernia	–	–	1	1	2	1	1	–	1	–	–	–	–	2	–	–	–	–	48
Poison	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	2
TOTAL	27	510	480	40	481	662	159	983	47	77	107	25	102	829	261	916	212	16	22,788

continued from page 37.

a Varicella. *b* Roseola. *c* Hæmatemesis. *d* Hæmaturia. *e* Hæmeralopia. *f* 1 Chorea.

MEDITERRANEAN STATION.

(To face p. 39.)

MEDITERRANEAN STATION.

Mediterranean Station.

THE squadron on this station in 1863 consisted of thirty-three vessels, of which one was a first-rate, two were second-rates, one was a third-rate; there were four large frigates of the fourth-rate, three frigates of the sixth-rate, five sloops, five gun vessels, two steam vessels, two surveying vessels, two gun-boats; and a receiving ship permanently stationed in Malta harbour. The mean force corrected for time was 8,470. The total number of cases of all diseases and injuries under treatment was 13,844, of which 363 were invalided, and eighty-one died. The ratio per 1,000 of mean force of cases was 1634·4; of invaliding, 42·8; and of death, 9·5. The ratios of cases and of invaliding are somewhat greater than the average ratios under these heads on this station taken for a period of seven years; but the death rate is less by 1·3. The ratio of sickness in the different ships ranged from 21· to 94·6 per 1,000 of mean force. The healthiest ships were the Surprise, the Medina, and the Marlborough, while those in which there was the highest sick rate were the Cossack, the Queen, and the Meeanee.

The daily loss of service from fevers, including the exanthemata, was equal to about twenty-four men, or in the ratio of 2·7 per 1,000 of mean force; from diseases of the nervous system it was equal to about five men; from affections of the organs of respiration about forty-six men, or about 5· per 1,000; from various affections of the heart and blood vessels, the loss of service was equal to seven men daily; from diseases of the digestive organs the loss was equal to seventeen men daily; from diseases of the liver about two or three men. The daily loss of service from diseases of the genito-urinary organs was equal to forty-three men, almost all of whom were labouring under different forms of venereal disease; the daily sick rate from this cause was about 5· per 1,000. There was a daily loss of service from rheumatism at the rate of 5·2 per 1,000; from affections of the special senses, of ·5; skin and

Mediterranean Station.

cellular tissue 18· per 1,000, 8·5 being attributable to boils and 6·8 to ulcers; from diseases not classed the daily sick rate was 1·1 per 1,000; and, from wounds and injuries of various kinds it was 10·2. The total number of men daily sick from all diseases and injuries was about 453, which is in the ratio of 53·3 per 1,000 of mean force, and below the daily sick rate of the previous year.

Fever.—There were 543 cases of fever of a continued or remittent type under treatment, of which five were invalided, and twelve terminated fatally. The ratios under these heads is considerably below those of the previous year.

With few exceptions none of the febrile cases in the Alacrity, Caradoc, Chanticleer, or Cockatrice, were of much importance; they were mostly of an ephemeral nature, only requiring four or five days' confinement to the sick list.

All the cases occurring in the Cossack are returned as ephemeral. Twenty-three of them appear in the return for the Christmas quarter, when the ship was on the coast of Syria. The chief symptoms were slight feverishness and headache for a day or two, leaving the patient in a debilitated state. The average time the cases were on the sick list was from four to six days.

There were thirteen cases of continued and remittent fever in the Edgar, all excepting four being of an ephemeral nature. In the exceptional cases the severity of the febrile symptoms was aggravated by being complicated with chest affections; but even in these cases the period of treatment was not prolonged beyond fifteen days.

None of the cases in the Foxhound were of any importance. The average time they were under treatment was five days.

In the Hibernia there were eighteen cases of remittent fever, the average duration of each case on the sick list being about fourteen days. From this it may be gathered that the cases were occasionally of a severe nature. With reference to these cases, and the prevalence of fever generally near the part of the harbour where the Hibernia is anchored, the surgeon* makes the following observations :—

"The health-rate of the crew of the Hibernia during the year was high; and I may add that the island itself was healthy excepting

* Surgeon T. R. Pickthorn.

ing during the autumn months, when an eruptive fever was epidemic. Few cases of this fever, however, appeared in the Hibernia, and they are included in the table under the head of Remittent Fevers, with true cases of remittent; though for the most part the fever with eruptions was a simple febricula, presenting roseolar, erythematous, or urticarious patches of eruption. In my nosological return from Her Majesty's dockyard for Christmas quarter, I stated that this fever was prevalent in the month of October and early part of November around the margins of Dockyard Creek. I can only account for the immunity from it enjoyed by the crew of the Hibernia, by the fact that where she is moored the water is less impure; and there is also, nearly abreast of the ship, a gap between Fort St. Angelo and the ridge of Vittoriosa, permitting a current of pure air to pass from the mouth of the harbour. Thus it may be supposed that the predisposing causes of disease are in less force than higher up the creek, where the water is more impure and the air more stagnant. In my previous journals I have called attention to the condition of this creek, and have stated that it is little better than a gigantic cesspool. I am sorry to add that no improvement in it has taken place. The emanations are constant and most offensive; but though exposure to them may produce a low condition of health, it is not until after the early rains which usually fall about the end of September, or beginning of October, that the state of the creek becomes absolutely dangerous. During the dry summer an accumulation of sewage takes place in the sewers, and is swept by the first autumn rains into Dockyard Creek. There the water is almost always stagnant, and the consequence is, that the adjacent atmosphere becomes contaminated by sewage gases to such an extent as to produce a more or less poisonous influence on persons exposed to this atmosphere. As a fair proof of this I may state, that more than one-half of the police force employed in the dockyard and victualling yard have suffered from the prevalent fever. These men, beyond all other persons, except those who live in houses very close to the edge of the creek, are much exposed, both by night and day, to the contaminated atmosphere I have described. Moreover, almost without exception, the residents in the officers' quarters, in the Admiral's house, and in the victualling-yard houses suffered more or less from fever during the autumn, and these houses are situated at only a few yards' distance from the margin of the creek. In more than one case syncope ensued, and stimulants were necessary from the commencement of the attack. The remedies proposed for the present conditon of the creek are, a diversion of the sewage from it to some uninhabited part of the coast, or the boring of a tunnel from Dockyard Creek into one of the adjacent creeks, so as to permit some slight current through the upper part of the creek. In my opinion, the only course that would be satisfactory would be to carry the sewage away from the creek, and either utilize it, or convey it to the sea."

These remarks are in keeping with the observations made upon the prevalence of enteric fever in Malta Harbour in the Statistical Report on the Health of the Navy for the year 1862. The fever, however, which is referred to above as having, although

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although presenting the character of an exanthem, been included in the table with remittent fevers, was not of an enteric nature, and had probably no connection whatever with the offensive emanations from Dockyard Creek. It was a spurious form of measles which prevailed extensively throughout the island, and attacked some of the vessels lying in the harbour.

There were sixty-five cases of primary fever in the Icarus. Forty-three of these were of an ephemeral nature, the remainder of the remittent type. The average duration of treatment of these cases was eight or ten days.

None of the cases occurring in the Liffey and Magicienne call for comment.

Twenty cases of primary fever appear in the returns from the Malacca. Of these, two of enteric fever proved fatal. One case occurred in the month of September, at Patras, the other in October, at Missolonghi. In one, death took place on the seventh day, and in the other on the fourth; the bowel affection was well marked in both.

There were sixty-four cases of primary fever in the Marlborough, some of which were of a severe nature. With reference to these cases the surgeon * makes the following observations:—

"In the summer months many cases of fever were put upon the sick list, but in general they were so slight as to be entered as febricula only; in fact, many of them seemed to be nothing more than passing cachexia or general malaise of a few days' duration, arising probably from the enervating influence of a high temperature. Some of them assumed much more important features, were attended by great weakness and depression, and required much care and watching in their progress. One case alone became typhoid, with the characteristic spots and abdominal symptoms. The fevers of the latter portion of the year were not so numerous as they were in the height of summer, but the cases generally were of a more severe kind. Several of those that came under my care towards the end of the year were of a very low asthenic type, and exceedingly tedious in their convalescence. Obstinate debility, headaches, and general pains, and frequent and sudden relapses of these complaints, kept the patients unfit for any active employment long after the febrile symptoms had left them, and after all the functions appeared to have resumed their normal state. One man after having been nearly three months on the sick list on board, and having had repeated returns of faintness, headache, and pains of the limbs, was sent

* Dr. Wm. Duirs.

sent to hospital at Malta on the ship's arrival there, with the hope that the change to the shore might complete his convalescence, but it was found necessary to invalid him afterwards from that establishment, on account of general rheumatism. In the treatment of these fevers a general tonic plan seems to be the best. A tendency to diarrhœa may be the most serious complication, but in general careful dieting and nursing, without any medicine, may be safely trusted with the cure. It is after convalescence seems to have begun, and when the patient himself fancies that he is getting well, that difficulties are more apt to arise. Slight disturbance in the excretory functions produce more than a proportionate impression, and these sometimes come on in a capricious and fitful way. The interruptions in the convalescence show themselves in a fainting fit, in a sense of cold and shivering, in sudden weakness, with pain and stiffness of the large joints, or in headache and sleeplessness; and after one of these attacks the patient is depressed in spirits and reduced in strength. Wine and quinine in moderate quantities are the remedies that do most good; but it is necessary to vary the quinine occasionally with preparations of iron, or the bitter infusion. I am inclined to trust a good deal to change of air when it can be obtained, in protracted convalescence from these fevers. Some of my old cases got quite well when the ship left Athens and came to Malta in the beginning of December."

The treatment of the cases of primary fever in this ship averaged about ten days.

Of fifty-three cases of primary fever that appear in the returns from the Meeanee, thirty-four occurred during the Michaelmas quarter of the year, when the vessel was stationed at Athens, and seventeen in the Christmas quarter, also attributable to the same locality. The majority of the cases were ephemeral in their nature, although a few were more protracted. Ten of the cases were decidedly remittent. One was a marked case of enteric fever, with the characteristic eruption. This case proved fatal in Malta Hospital.

The cases of fever in the Orlando and Pelican were contracted on the coast of Greece. In both vessels they appear to have been of an asthenic type, in several instances with decided enteric symptoms. In the Orlando the average duration of the treatment of cases was nine days; in the Pelican about seventeen.

There were thirty-two cases of primary fever in the Phœbe, the majority of which were of an ephemeral character. Of five cases of fever that occurred in the Psyche while stationed at Constantinople, one, which had a fatal termination, was a marked case of enteric fever: it occurred in the person of an officer, and the disease, it appears, was prevalent in the town.

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There were fourteen cases of primary fever in the Queen, one of which had a fatal termination. It occurred in a boy, and was contracted at the Piræus. In the very few details given of the case it appears to have been a rapidly fatal form of enteric fever; but there was no autopsy, and its history, given by the different medical officers, is of the most meagre character.

Two cases of enteric fever appear in the returns of the Revenge, one of which terminated fatally on the twelfth day. In this case the eruption was distinct, but the diarrhœa was slight. The patient who recovered was upwards of two months under treatment.

There were seven cases of enteric fever in the St. George, almost all contracted at Naples, and in three having a fatal termination. In these cases, besides the specific lesions of enteric fever, pneumonic symptoms co-existed in one or two instances, and were of a severe character.

There were ninety cases of primary fever in the Trafalgar. Eighty-five of these were of the remittent type, and the remainder were continued. All the cases of continued fever occurred in the first quarter of the year, and appeared to be a continuance of a febrile visitation which had broken out in the ship during the Christmas quarter of 1862, and which partook somewhat of the character of influenza. In some instances, however, it presented the appearances of spurious measles, there being an erythematous eruption over the body. Several of these cases, singular to say, appeared at sea before the ship arrived at Malta, in which island they found, on their arrival, that the disease was prevalent.

During the Midsummer quarter, while the vessel was refitting, and at anchor within the French Creek at Malta, an epidemic of mild remittent fever broke out. The average duration of the fever was about ten days, and it was characterised by severe frontal headache, irregular remissions, and great prostration. The ship, at the surgeon's suggestion, was removed to Bighi Bay with decided benefit, but occasional cases continued to appear until she went to sea on the 3rd of June, when the epidemic ceased. In the Michaelmas quarter, while lying in the Piræus, there were sixteen cases of remittent fever, of a more or less severe character, one of which proved fatal. It occurred in a seaman, and death took place on the seventh day. There was in this instance great gastric irritability, with bilious vomiting, and symptoms

symptoms of hepatic congestion for the first four days, after which he became delirious, the delirium resembling that of phrenitis, and died comatose. With reference to the cases occurring at this time, the staff surgeon * says—"In the French frigae the Magicienne some cases of typhoid fever have appeared, and a boy died of the same disease on board H.M.S. Queen; but all the feverish attacks in this ship have shown the remitting character, and they do not appear to be referable to any individual excess, or exposure to contagion."

There was one case of enteric fever in the Trident, and one in the Weser. With these exceptions the cases of primary fever in these vessels were not of much importance.

There is nothing in the returns from the various ships to call for any observations on the distribution of the different forms of fever in the Mediterranean: this has been already done at some length in the Statistical Reports for the years 1861 and 1862. The total days sickness on board ship and in hospital from the 524 cases that were under treatment in the squadron, was 7512, which gives an average of fourteen and a half days' treatment to each case.

Intermittent Fever.—This form of fever prevailed more in the Cockatrice, Orlando, Phœbe, and Weser, than in any other vessels of the squadron. In the Cockatrice and Weser the disease was contracted in the River Danube, where those vessels were stationed. In the Orlando it seems to have been originally contracted on the coast of Mexico, while that vessel was attached to the West Indian Squadron; and in the Phœbe the majority of the cases occurred while the ship was employed on the coasts of Syria and of Greece.

Eruptive Fevers.—A boy of the Cockatrice was seized with small pox at Galatz, where the disease was prevailing; and there was a single case of the same disease in the Trafalgar, contracted apparently at Athens, where it was epidemic. In both instances the patients showed good marks of previous vaccination, and in both the disease was exceedingly modified.

Scarlatina.—There were two cases of this exanthem in the Edgar. This disease was contracted at Corfu, in the Lady

* Dr. Robert Bernard.

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quarter of the year, where it was epidemic at the time the vessel lay there, and with reference to which the surgeon* makes the following interesting observations:—

"Scarlatina has been epidemic at Corfu since the beginning of November; the cases have been most numerous and most fatal among the native population; many cases, however, and some deaths have occurred in the families of the officers and soldiers of the garrison, especially those not residing in the citadel, but living in the town. Some of the English visitors also, who had selected this island for their winter residence, were attacked with the disease. No cases occurred in the country districts. The increased mortality of the disease among the resident Greek population is to be attributed to various causes: their habits and manner of life; their want of personal cleanliness; their living in crowded and ill-ventilated rooms, from which, in cold weather, the external air is carefully excluded, while they are prejudiced against the use of fires, which they never burn in their sitting rooms. The defective sewerage, imperfect supply of water, and the want of any sanitary regulations, added to the habit of numerous families, even of the wealthier classes, living in flats of large houses, of which the upper and basement stories may be tenanted by the poor, and the narrow and imperfectly cleansed streets, form together an amount of ills sufficient to intensify and propagate the mildest form of zymotic disease. The practice too of the Greek physicians tends to aggravate the effect of the numerous depressing causes I have named. While they lower the system by evacuants and diaphoretics, they are as jealous as the most uneducated of any use of the bath, or of even warm sponging during the progress of the disease. In one case, occurring in an English lady, to whom I was called in consultation, she had become so reduced that her case was becoming serious, and I had to insist strongly on the use of iron and wine, under which she made a rapid recovery. Regular monthly leave having been given to the ship's company, and night leave to privileged men twice a week, I anticipated the possibility of an outbreak of the epidemic in the fleet, and suggested to the admiral in command the propriety of having the lazaretto got ready, in case of its being required for the use of the sick. It is situated on an island about a mile from the usual anchorage, a mere patch of rocks on which the buildings are erected, with space enough for a small burial-ground outside the wall enclosing the quarantine buildings. These had been allowed to get out of repair in the two largest wards erected for seamen; the flooring was rotten and the roof defective, and of the whole range only two houses were in sufficiently good order to admit of the reception of patients. These were aired, large fires lighted, and the necessary bedsteads, beds, and all other articles, procured from the military store. In this ship only two cases occurred, one, very mild, in a seaman, who was sent at once to the lazaretto as soon as the eruption appeared; the other, in a midshipman, who was sent for treatment to the military hospital on the fourth day of the disease; the symptoms in this case were

* Surgeon W. H. Sloggett.

were attended with extreme prostration from the beginning, a dry brown tongue, and delirium. Under the use of stimulants, tepid sponging, and afterwards warm baths, he made a good recovery.

"Through the kindness of Sir Henry Storks, the Lord High Commissioner, I obtained the following statistics of the epidemic in the island:—

Population -	Town - - -	17,699	26,012
„ -	Suburbs - - -	8,313	
„ -	Country - -	45,214	
„ -	Islets - - -	1,741	
	Total - - -	72,967	

No cases occurred in the country districts or islets.

	Ages 1 to 10.	Ages 10 to 20.	Ages 20 to 30.
Total deaths from scarlatina, according to ages, between the 1st November 1862, when the first case appeared, and the date of the Edgar sailing, 14th April 1863 - - - - - -	139	11	2
		= 152	
Deaths from tonsillitis, dropsy, and renal disease, in the same period, probably the sequelæ of scarlet fever - - - - - -	-	19	
Deaths from measles (?) - -	-	5	
Total Deaths - - -		176	

"The cases have been most numerous and most severe in those districts in which cholera was most fatal. In addition to the mortality resulting from scarlatina, the number of deaths from other causes has increased. On comparing these figures with the official returns of the Registrar General of the number of deaths from scarlatina, in London, for the years 1850 to 1854 inclusive, I find that while in London the deaths from scarlatina in the two quarters ending, respectively, December the 31st and March the 31st, are as 456 for every million of population, in Corfu, during the past winter, the proportion will be as 6,112 for a million. And again, on comparing the deaths in the two most fatal quarters, December and March 1854, in London, the mortality at Corfu will be found as being in the ratio to that of London, as 6,112 to 910, more than six times greater. Again, a comparison with the deaths from cholera at Plymouth during the epidemic of 1854 shows that at Corfu, during the past winter, more than double the number of deaths occurred in proportion to the population than at Plymouth during the whole course of the epidemic of cholera. I have selected the latter place for comparison, from its containing a larger number of close, badly ventilated streets in the vicinity of Sutton Pool and the Barbican, and from the sanitary measures being less perfect than in many of the seaports of England."

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With reference to the meteorology of the Lady quarter of 1863, during which this epidemic prevailed, the following remarks are made:—

"In the month of January, strong northerly winds prevailed, attended with squalls of rain, and thunder and lightning. From February the 1st to March the 10th the weather was cold and dry, with occasional strong northerly breezes; and since the 10th of March, the weather has again become wet and squally. A generally high state of the barometer prevailed in January, the range being from 30·04 to 30·40, with the exception of the 20th and 21st, when it fell to 29·60 to 29·90. For the whole of February, and up to March the 7th, the barometer continued high, often 30·50; since then it has usually been between 29·90 and 30·00.

"Ozone observations have been taken regularly since the 10th of February, and the test papers have generally indicated a high amount of this atmospheric product. With reference to the assertions of Dr. Pfaff, reported in the 'Medical Times and Gazette' of September 1862, that a large amount of ozone in the air, favours the development of tonsillitis, I have to remark that more lengthened series of observations are necessary before these conclusions can be accepted in their entirety, for although cynanche certainly prevailed more than usual during the past quarter, and on certain days there seemed to be some relation between the number of cases admitted and the amount of ozone shown by the test papers, there were many exceptions, and cases of cynanche occurred on days when the air was relatively deficient in ozone. Further, may not the same changes of temperature which affect the relative electric conditions of the air, and thus induce a greater or less amount of ozone, cause the tonsillary and catarrhal affections?"

There was a case of scarlatina in the Magicienne. It occurred at Malta, in the person of an ordinary seaman. There were no cases of the disease so far as could be ascertained on the island at the time, but the vessel had only ten days previously visited Corfu, where it was prevalent.

There were eight cases of scarlatina in the Meeanee. The disease was contracted in England, one case having presented at the close of the previous year in the person of a midshipman. It continued until the 24th of February, and was almost altogether confined to the members of the midshipmen's mess, the only exception being a marine and a ward-room boy. Although only nine persons altogether were returned as suffering from this disease, it appears that throat affections were at the same time very prevalent, and that in many of these cases as the throat symptoms disappeared, and even after the patients were discharged to duty, a process of desquamation was observed, from which it may be inferred that the exanthem, although not so well marked in its symptoms in all cases, had a much more extensive spread than is assigned

assigned to it. As happens, in fact in almost all epidemics of this fever, there occurred contemporaneously a number of obscure affections, which doubtless were referrable to the action of the scarlatinal poison. One case of this nature occurred on this occasion, in which the patient, a master's assistant, was placed on the sick list with the ordinary symptoms of catarrh. There was cough, with ropy mucous expectoration, general malaise, debility, and great pallor of countenance. The urine became albuminous; serous effusions into the lungs and pericardium, and various parts of the body took place, and he finally sank exhausted after a lingering illness.

Six cases of scarlatina appear in the returns from the Trafalgar. Of these, two occurred at Corfu, in February, where, as previously stated, the disease was very prevalent; and the remainder in the Christmas quarter of the year, at the Piræus of Athens, where some cases had appeared on shore.

Measles.—A single case of this disease occurred in the Shannon shortly after leaving Corfu, during the prevalence of scarlatina there. The patient was an officer, and the affection ran a mild course. There were two cases in the Wanderer, while that vessel lay at Smyrna, where small-pox was epidemic: both were mild.

Diseases of the Brain and Nervous System.—One hundred and three cases are returned under this head, of which thirty-eight were invalided, and six terminated fatally. Of those invalided, seventeen were subject to epilepsy and eleven were insane.

There were twenty-three cases of delirium tremens under treatment. Of these, eight occurred in the persons of able seamen; seven in marines; four in petty officers, and four in ward-room officers.

There was a fatal case of abscess of the brain in the Meeanee. The subject of the disease, a marine, had been frequently under treatment for various secondary forms of syphilis. On the last occasion on which he presented himself, he complained of severe headache, and stated that a discharge from the left ear, which had existed for some time, had ceased. At first there was very little general disturbance of the system; the discharge from the ear was re-established, and the headache very much abated. About a fortnight after being placed on the sick list he was brought to the sick bay, with violent headache and pain in the ear, the discharge having again ceased. He lay with his eyes shut, rolling his head from side to side, but

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perfectly sensible, although at first he did not reply to questions. On the following morning the discharge returned, but vomiting set in, and he evinced great intolerance of sound. The pulse was only a little above 60. In the subsequent progress of the case, which was, however, of very short duration, rigors set in; delirium; the articulation became indistinct; there was stertorous breathing, and he finally died comatose.

The following report of the post-mortem appearances, by the surgeon* of the Meeanee, is interesting, when it is considered that "notwithstanding the extensive disease discovered after death within the skull, and in the petrous portion of the temporal bone of the left side, perfect consciousness, although with extreme suffering, was retained until within an hour or two of death"—"On detaching the skull cap, great venous congestion of the superior longitudinal sinus and its tributary veins was observed. The brain having been removed, about two ounces of fœtid sero-purulent matter was found in the middle fossa of the base of the skull on the left side, while caries of the corresponding (petrous) portion of the temporal bone was noticed. The contiguous portion of the middle lobe of the brain being discoloured and evidently disorganised, an incision was made, revealing a large abscess containing nearly an ounce of fœtid pus. A considerable quantity of serous fluid was found in the lateral ventricles, particularly in the left side, and the choroid plexus was remarkably dark from venous congestion. After the skull cap had been replaced serous fluid continued to flow from the external auditory meatus of the left side."

A case of disease of the brain, apparently of syphilitic origin, occurring in a marine serving in the Trafalgar, had a fatal termination in Malta Hospital. The first symptoms were violent epileptiform convulsions, not preceded, however, by any warning, nor accompanied by the cry so common in epilepsy. There was a painful node over the right parietal bone, which, according to his own statement, followed an attack of secondary syphilis, under which he laboured some years previously. After death about five ounces of serous effusion were found at the base of the brain, and its membranes and substance were highly congested. The dura mater was firmly adherent to the right anterior lobe, thickened and cartilaginous, with numerous spiculæ of bone in its texture. The

* Dr. Wm. Ross.

The substance of the brain in this situation was soft and partially disorganized.

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Diseases of the Organs of Respiration.—The average ratio of all cases of disease coming under this head, for a period of seven years, was 242·0 per 1,000 of mean force; during the year 1863 it was 229·0: in 1862 it was very low, being only 219·9.

It is an interesting fact in connection with the prevalence of particular diseases in different climates, that the ratio of phthisis is greater on the Mediterranean Station than on any other, with the exception of the Coast of Africa. The average ratio of cases of consumption in the total force, for a period of seven years, was 6·5 per 1,000. In the Mediterranean Squadron it was as high as 8·, and on the West Coast of Africa it was 9·2. To those unacquainted with the Naval Service it would naturally occur that this high sick rate from phthisis, so far as the Mediterranean is concerned, might be attributable to the fact of this station being sought after by those having a tendency to this form of disease, and that, therefore, it could with no more justice be accused of being its cause than could Madeira, or any other sanatarium for the consumptive, of causing the disease in those who resort to these places; and there would be some plausibility in this argument if it could be shown that it was amongst the officers of the squadron chiefly that the disease prevailed; for, however small an officer's power of selecting his station may be, it may be conceded that in his case the difficulty of doing so might, in some instances, be overcome. In point of fact, however, a very large proportion of the cases that occur are amongst the men, who certainly have no choice of this kind; and the fact that the station which shows the largest ratio of cases of phthisis is the West Coast of Africa, would indicate some other influence to be at work than that just referred to, and there seems to be good ground for supposing that on both these stations it is of the same kind, differing only in degree.

The surgeon of the Marlborough says:—

"Similar influences, perhaps, to those which induce asthenic febrile attacks in the Mediterranean summer, operate in exposing latent chest affections, and quickening the development of tubercle. Several men who had continued to do their duties in all parts of the ship while the cool season lasted, broke down rapidly as the summer advanced. In several instances the first alarm to the patient himself was an attack of hæmoptysis, either on turning out of bed in the morning, or on making some active exertion, such as running aloft. One clear indication in such cases, suggested at the outset by the circumstance that I have just mentioned, is, that a cessation of

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all active employment is essential for the patient's present safety; and having regard to the rapidity with which tubercle advances during the summer on most parts of this Station, it appears to me, that when it is ascertained that phthisis has decidedly established itself, the proper course is to send the subject of it home as speedily as possible, provided there be a prospect of a month or two of mild weather for him at home before the commencement of winter. . . . . The development of tubercle is undoubtedly much favoured by the summer season on this Station; in some of my cases it was very rapid, and no measures of treatment had much effect in arresting its progress. Generous diet, with a little wine, and clear sleeping-room formed nearly the sum of the treatment. Cod-liver oil is not easily taken, nor does its use appear to be so beneficial in the hot season, as in more temperate weather."

These remarks will commend themselves to all medical officers who have experience of this Station, and they are well worthy of consideration on the part of those who, from a want of such knowledge, may be inclined to look upon the Mediterranean as a favourable station for those hereditarily predisposed to phthisis.

Diseases of the Organs of Circulation.—The ratio of cases of diseases of this class is precisely the same as in the preceding year, but there is a fractional increase in the invaliding and death-rates.

A seaman of the Trafalgar, who had been invalided for mental imbecility, died somewhat suddenly on board the Hibernia, of disease of the heart. On post-mortem examination of the body the following appearances were observed: the membranes of the brain were healthy, but the vessels engorged. On slicing down the cerebral mass, a large portion of the right middle lobe was found to be in a softened and disintegrated state; and in the centre of this softened mass a cavity as large as a hazel nut existed. No disease of any other part of the brain could be detected. The cavity seemed to be filled with broken down grumous-looking brain matter. The cavities of the heart were dilated, and their walls hypertrophied, particularly those of the left ventricle; large vegetations on the aortic and mitral valves; some of the vegetations were pendent, and easily detached from the valves. A large mass of fibrine was found at the aortic orifice, not attached. The spleen was about three times its natural size. This man had been brought to the sick bay of the Trafalgar in a state of stupor, for which no direct cause could be assigned. He continued in a more or less somnolent condition, but there was no paralysis either of motion or sensation. Intellectually, his perception was vague, his ideas confused,

confused, and he had great difficulty in answering questions. He died on the day following that on which he was transferred to the Hibernia, having been previously affected with great disturbance of the respiratory and circulatory systems. While on board the Hibernia no coherent answers could be obtained from him when interrogated as to his complaint.

A seaman of the Orlando died from the rupture of an aortic aneurism. He was placed on the sick list on the 14th of October, on account of his having coughed up several ounces of frothy blood. The bleeding was checked, and the aneurism diagnosed at this time. The hæmoptysis recurred every three or four days, until the 30th of November, when, after a severe fit of coughing, he expired. The aneurism was found to have opened into the right lung, and through the lung to have at last effected an opening into the right pleural cavity.

Diseases of the Alimentary Canal.—There is a large increase in the ratio of cases of disease coming under this head, but the loss they occasioned to the service by invaliding is less than in the preceding year. Diarrhœa was the form of disease that prevailed most, and this affection appears to have been especially frequent in the Cossack, Meeanee, Orlando, Queen, St. George, and Trafalgar.

There were 114 cases of diarrhœa in the Cossack, forty-nine of which occurred between the 21st of July and the 23d of August, while the ship's company were hulked in the Hibernia, at Malta. The disease is attributed to the heat of the weather, and the large supply of fruit, often unripe, which the ship's company were able to procure. The duration of each case averaged about six-and-a-half days.

In the Meeanee there were ninety-three cases of diarrhœa, occurring chiefly in the summer and autumn months of the year, and not of any urgency. The same may be said of eighty-four cases that appeared in the Orlando, in which the duration of each case on the sick list was between four and five days. In the Queen there were 145 cases of diarrhœa; but little or no information whatever is given by the medical officers of this ship in connection with this, or any of the diseases that appear in the returns from her.

There were sixty-two cases of diarrhœa in the St. George. With reference to them the surgeon* says, " The majority of the

* Dr. John Stirling.

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the intestinal affections occurred during the summer season, and were probably dependent upon the elevated temperature which prevailed during the ship's detention in the Greek Archipelago, when the thermometer averaged 90°, and a difference of 18 degrees was at times shown by the dry and wet-bulb indicators. All of these, with the exception of the solitary cases of hæmatemesis and tænia were instances of diarrhœa of a mild and tractable nature (the average detention on the sick list not exceeding five days), and were unattended by any prostration."

The bowel affections that prevailed in the Trafalgar were not of much importance; they were chiefly cases of diarrhœa and colic. The average duration of each case on the sick list was about four days. The surgeon states that the water in the Piræus was brackish, and produced some irritation at first, but the men soon tolerated it. It was only used for tea, cooking, and washing purposes. Condensed water was used for drink, but this also, when served out too soon, seemed to have a disturbing effect.

A stoker of the Edgar died in Malta Hospital from the effects of an abdominal tumour; it simulated aneurism, and on post-mortem examination of the body was found to involve the pyloric extremity of the stomach, the duodenum, and the pancreas. It was adherent to the great abdominal vessels, and in its interior was a cavity which communicated with the stomach. Peritonitis was the immediate cause of death. The abdomen was found distended with serum, and there was extensive effusion of lymph.

Genito-Urinary Organs.—There is a very great decrease in the ratio of these diseases. In 1862, the ratio of cases of syphilis was 60·5 per 1,000 of mean force; during the present year it was only 29·1. There is a slight reduction also in the other venereal affections.

The advantages to the public service derived from the stringent system of surveillance carried out at Malta have been so frequently commented upon in former Reports on the Health of the Navy that it would be superfluous to remark upon them again here. It will be sufficient to say that in all those vessels in which syphilis or gonorrhœa appeared in largest numbers the diseases were either contracted originally in England, or at Naples or Athens. In these two cities surveillance is either exceedingly lax or altogether wanting. The surgeon of the Meeanee, writing from the Piræus

Piræus of Athens, says, "All the syphilitic cases have followed leave given at this place, for in no case, as far as I know, was the disease contracted at Malta, a fact speaking loudly for the beneficial effects of the recently-established police restrictions." The surgeon of the Marlborough makes the following remarks: "Venereal diseases have been few and very easily managed. Of those contracted during the period of the journal, not one has as yet presented any sign of constitutional symptoms; and if we leave out of reckoning the strictures (both of which were of very old standing) and non-venereal testitis, we shall have an average of little more than one case on the list daily throughout. It is needless to say that this is a practical result of a judicious control exercised over the prostitution in places where our men have been on shore on leave. Contrast it with similar results of liberty given in our seaports at home, where our sea and land forces both are sacrificed in such numbers to an impracticable sentimentality which excludes all supervision. The control of the police authorities over prostitution in Athens had greatly relaxed in its vigilance during the interregnum, from causes that do not need to be stated, and as a natural consequence the disease had gained ground considerably in the course of the summer, so that, small as my numbers are, I have every reason to believe that they would have been still smaller if the system of control had met with no interruption. In Malta also it is carefully guarded by proper regulations, and so well do these operate that any fresh importation from abroad of disease becomes known very soon. Not long ago a new regiment arrived in the garrison from a station where the spread of venereal is not so assiduously kept down, and for some months afterwards there was a greater number of cases in Malta than usual. Such circumstances are so far useful that they encourage active measures for keeping down disease; they show that an organized crusade against it is efficient, though, from the numbers of sailors and soldiers always at large, it might soon grow into a pestilence at Malta, not less destructive to the public services than we find it to be in our garrisons at home."

Rheumatism.—Eight hundred and ten cases of rheumatism were under treatment, thirty-seven of which were invalided, and one is returned as dead. This is a decrease as compared with the preceding year. The vessels in which the largest number of cases occurred were the Meeanee, the Queen, and the

Mediterranean Station.

Trafalgar. The disease rarely presented itself in the acute form. In the Trafalgar, however, there were several cases of the acute variety, in which both the pericardium and endocardium became affected. The staff surgeon makes the following remarks upon these cases: "Several cases of pericarditis and endocarditis have been treated, but these commenced with symptoms of acute rheumatism, and were entered on the sick list as such. In only one was mercury given, and with worse than doubtful effect. In that instance the attack commenced with what appeared to be eruptive or erysipelatous fever. Acute rheumatism and pericarditis supervened. Mercury, however, was not pushed to any excess, and the stimulating plan of treatment was freely adopted. The other cases got comparatively well under this practice alone. Ammonia with chloric æther; wine or brandy with beef tea; cataplasms and fomentations to the region of the heart, and the vesicating fluid at the latter part of the disease; in fact, the same treatment as that used in cases of pneumonia and pleuritis has been found to be almost certainly successful."

The fatal case of rheumatism occurred in a boy of the Phœbe, who was attacked with the disease in its acute form, all the large joints being affected. Ultimately the heart became involved, and he was invalided. On his arrival in England he was received into Haslar Hospital, where he died exhausted. No post-mortem examination of the body was permitted.

Diseases of the Skin and Cellular Tissue.—There were two fatal cases of psoas abscess; one in the Liffey, complicated with phthisis; the other in the Queen. A fatal case of abscess appears in the returns from the Meeanee. The man, a bandsman, presented himself with a swelling on the front of the left thigh, and appeared to be in a very feeble condition. At the end of a week an incision into the swelling gave exit to a large collection of pus. The abscess continued to discharge freely, and the patient's strength was supported by food and stimulants. A troublesome dry cough, however, set in, and on the following day he was distressed with profuse perspiration, alternating with rigors. Thereafter emaciation made rapid progress; a low form of fever of an obscurely periodic type supervened, much pain was complained of in the chest, and the physical and rational signs of pneumonia became very pronounced. At one time he became slightly delirious, but this did not continue, and he remained quite coherent

coherent until within a few minutes of his death. There seems to have been no post-mortem examination of the body, but from its whole history the case appears to have been one of pyæmia.

Wounds and Injuries.—Nine men were killed by falling from aloft. One man died from extensive rupture of the liver and right kidney, caused by a violent blow of a bar thrown from the capstan. A man in a brawl on shore was struck on the head with an oar, and died from the compression consequent upon effusion of blood on the brain; and a man was killed by having his head crushed between the fluke of the anchor and the ship's side.

Two men fell overboard and were drowned, one while in the act of casting the stops off the cable. One found drowned was supposed to have accidentally met his death when drunk. Four men were drowned by the swamping of a boat while laying out an anchor; and one man was drowned by falling into the dockyard creek at Malta.

There were eighty-one deaths altogether in the squadron, of which sixty-one were from diseases of various kinds, and twenty from wounds and injuries and drowning. The total ratio of mortality was 9·5 per 1,000 of mean force, which is almost precisely the same as in the preceding year. Deducting deaths from injuries and drowning it was only 7·2.

Invalided.—Five men were invalided for the sequelæ of fever; thirty-eight for various diseases of the brain and nervous system, seventeen of whom were subject to epilepsy, and eleven were insane. Ninety-two men were invalided for diseases of the lungs, of whom eighty-eight were phthisical; forty for diseases of the heart and blood vessels; three for diseases of the alimentary canal; six for inflammation of the liver; twenty-two for diseases of the genito-urinary organs, fourteen of whom were labouring under different forms of syphilis; thirty-seven for rheumatism; seven for diseases of the bones and joints; thirteen for affections of the special senses; thirty-one for diseases of the skin and cellular tissue, nearly one-half being for ulcer; twenty-two for various forms of dyspepsia, including headache; one for dropsy; twenty-six for the effects of wounds and injuries of various kinds; and twenty for hernia; the total number invalided being 363, or in the ratio of 42·8 per 1,000 of mean force, which is considerably in excess of the previous year, when the invaliding-rate was only 35·1.

TABLE, No. 1.

SHOWING the Number of CASES of all DISEASES and INJURIES, and the Number INVALIDED and DEAD, with the Ratio per 1,000 of Mean Force.

DISEASE OR INJURY.	Number of Cases.	Ratio per 1,000 of Mean Force.	Number Invalided.	Ratio per 1,000 of Mean Force.	Number Dead.	Ratio per 1,000 of Mean Force.
Continued and Remittent Fever	543	64·1	5	·5	12	1·4
Intermittent Fever	213	25·1	—	—	—	—
Small Pox	2	·2	—	—	—	—
Measles	3	·3	—	—	—	—
Scarlatina	17	2·	—	—	2	·2
Disease of the Brain	4	·4	4	·4	2	·2
Apoplexy	4	·4	1	·1	2	·2
Epilepsy	29	3·4	17	2·	—	—
Paralysis	13	1·5	5	·5	1	·1
Insanity	11	1·2	11	1·2	—	—
Delirium Tremens	23	2·7	—	—	1	·1
Neuralgia	19	2·2	—	—	—	—
Inflammation of the Lungs and Pleura	102	12·	2	·2	6	·7
Phthisis and Hæmoptysis	91	10·7	88	10·3	15	1·7
Influenza and Catarrh	1,409	166·3	—	—	—	—
Cynanche	439	51·8	—	—	—	—
Asthma	11	1·2	1	·1	—	—
Aphonia	—	—	1	·1	—	—
Functional and Organic Disease of the Heart	64	7·5	32	3·7	5	·5
Hæmorrhoids	31	3·6	—	—	—	—
Varix	12	1·4	7	·8	—	—
Phlebitis	1	·1	—	—	—	—
Aneurism of the Aorta	—	—	1	·1	1	·1
Inflammation of the Stomach and Bowels	6	·7	2	·2	3	·3
Dysentery	13	1·5	—	—	2	·2
Diarrhœa	1,021	120·5	1	·1	—	—
Constipation and Colic	183	21·6	—	—	—	—
Disease of the Rectum	—	—	—	—	1	·1
Abdominal Tumour	—	—	—	—	1	·1

TABLE, No. 1.—Showing the Number of Cases of all Diseases, &c.—*continued.*

DISEASE OR INJURY.	Number of Cases.	Ratio per 1,000 of Mean Force.	Number Invalided.	Ratio per 1,000 of Mean Force.	Number Dead.	Ratio per 1,000 of Mean Force.
Inflammation of the Liver	16	1·8	6	·7	2	·2
Jaundice	30	3·5	—	—	—	—
Splenitis	3	·3	—	—	—	—
Inflammation of the Bladder and Kidneys	10	1·1	6	·7	—	—
Syphilis	247	29·1	14	1·6	—	—
Gonorrhœa	127	14·9	—	—	—	—
Orchitis	121	14·3	1	·1	—	—
Stricture	39	4·6	1	·1	—	—
Incontinence of Urine, &c.	15	1·7	—	—	—	—
Rheumatism	810	95·6	37	4·3	1	·1
Gout	7	·8	—	—	—	—
Disease of the Bones and Joints	21	2·4	7	·8	1	·1
Ophthalmia	115	13·5	2	·2	—	—
Amaurosis and Cataract	11	1·2	5	·5	—	—
Otitis and Deafness	36	4·2	6	·7	—	—
Erysipelas	45	5·3	6	·7	—	—
Scrofula	13	1·5	4	·4	—	—
Bubo (*Symp.*)	84	9·9	2	·2	—	—
Phlegmon and Abscess	3,071	362·5	3	·3	3	·3
Ulcer	1,071	126·4	15	1·7	—	—
Psora	79	9·3	—	—	—	—
Eruptions, &c.	184	21·7	1	·1	—	—
Dyspepsia and Debility	618	72·9	19	2·2	—	—
Scurvy	5	·5	—	—	—	—
Dropsy	16	1·8	1	·1	—	—
Worms	12	1·4	—	—	—	—
Headache, &c.	121	14·2	3	·3	—	—
Purpura	3	·3	—	—	—	—
Wounds and Injuries	2,505	295·7	26	3·	12	1·4
Burns and Scalds	115	13·5	—	—	—	—
Hernia	29	3·4	20	2·	—	—
Drowned	-	-	-	-	8	·9
Alcoholic Poisoning	1	·1	—	—	—	—
TOTAL	13,844	1634·4	363	42·8	81	9·5

TABLE, No. 2.

SHOWING the Number of DAYS' SICKNESS from each DISEASE, and from INJURIES, the Average Number of Men Sick Daily, with the Ratio per 1,000 of Mean Force.

DISEASE OR INJURY.	Number of Days' Sickness on Board.	Number of Days' Sickness in Hospital.	Total Number of Days' Sickness.	Average Number of Men Sick Daily.	Ratio per 1,000 of Mean Force.
Continued and Remittent Fever	5,987	1,525	7,512	20·5	2·4
Intermittent Fever	788	432	1,220	3·3	·3
Small Pox	12	4	16	—	—
Measles	24	-	24	—	—
Scarlatina	211	107	318	·8	—
Disease of the Brain	103	308	411	1·1	·1
Apoplexy	20	-	20	—	—
Epilepsy	418	11	429	1·1	·1
Paralysis	314	113	427	1·1	·1
Insanity	166	184	350	·9	·1
Delirium Tremens	152	86	238	·6	—
Inflammation of the Lungs and Pleura	1,822	1,084	2,906	7·9	·9
Phthisis and Hæmoptysis	2,052	1,261	3,313	9·	1·
Influenza and Catarrh	8,086	141	8,227	22·5	2·6
Cynanche	2,522	5	2,527	6·9	·8
Asthma	85	14	99	·2	—
Functional and Organic Disease of the Heart	1,064	1,057	2,121	5·8	·6
Hæmorrhoids	328	28	356	·9	·1
Varix	92	21	113	·3	—
Phlebitis	11	18	29	—	—
Inflammation of the Stomach and Bowels	56	61	117	·3	—
Dysentery	182	11	193	·5	—
Diarrhœa	5,094	160	5,254	14·3	1·6
Constipation and Colic	764	-	764	2·	·2
Inflammation of the Liver	288	99	387	1·	·1
Jaundice	353	94	447	1·2	·1
Splenitis	43	50	93	·2	—

TABLE, No. 2.—Showing the Number of Days' Sickness from each Disease, &c.—*cont^d.*

DISEASE OR INJURY.	Number of Days' Sickness on Board.	Number of Days' Sickness in Hospital.	Total Number of Days' Sickness.	Average Number of Men Sick Daily.	Ratio per 1,000 of Mean Force.
Inflammation of the Bladder and Kidneys	93	248	341	·9	·1
Syphilis	5,458	3,961	9,419	25·8	3·
Gonorrhœa	2,177	61	2,238	6·1	·7
Orchitis	1,805	744	2,549	6·9	·8
Stricture	571	543	1,114	3·	·3
Incontinence of Urine, &c.	133	137	270	·7	—
Rheumatism	10,827	5,302	16,129	44·1	5·2
Gout	194	43	237	·6	—
Disease of the Bones and Joints	386	124	510	1·3	·1
Ophthalmia	1,129	295	1,424	3·8	·4
Amaurosis and Cataract	74	-	74	·2	—
Otitis and Deafness	500	12	512	1·4	·1
Erysipelas	885	680	1,565	4·2	·4
Scrofula	335	198	533	1·4	·1
Bubo (*Symp.*)	1,935	663	2,598	7·	·8
Phlegmon and Abscess	25,056	1,290	26,346	72·3	8·5
Ulcer	19,620	1,409	21,029	57·6	6·8
Psora	1,138	-	1,138	7·	·8
Eruptions, &c.	2,970	302	3,272	8·9	1·
Dyspepsia and Debility	2,320	448	2,768	7·5	·8
Scurvy	98	-	98	·2	—
Dropsy	159	10	169	·4	—
Worms	139	65	204	·5	—
Headache	807	219	1,026	2·8	·3
Purpura	18	-	18	—	—
Wounds and Injuries	27,426	2,688	30,114	82·5	9·7
Burns and Scalds	1,355	71	1,426	3·9	·4
Hernia	372	22	394	1·	·1
Poison	11	-	11	—	—
TOTAL	139,028	26,409	165,437	453·1	53·3

TABLE, No. 3. - - - - - - - -

SHOWING the Number INVALIDED from each Ship - - - -

CAUSE of INVALIDING.	Alacrity.	Chanticleer.	Cockatrice.	Cossack.	Edgar.	Firebrand.	Firefly.	Foxhound.	Hibernia.	Icarus.	Liffey.	Magicienne.
Continued and Remittent Fever	–	–	–	–	–	–	–	–	1	1	–	–
Disease of the Brain	–	–	–	–	–	–	–	–	–	1	–	–
Paralysis	–	–	–	–	–	–	–	–	–	–	–	–
Insanity	–	–	–	–	–	–	–	–	–	–	–	–
Epilepsy	–	–	–	–	–	–	–	–	–	1	1	2
Vertigo	–	–	–	–	–	–	–	–	–	–	–	–
Coup de Soleil	–	–	–	–	–	–	–	–	–	–	–	–
Phthisis and Hæmoptysis	–	–	–	1	3	–	3	2	–	1	3	4
Aphonia	–	–	–	–	–	–	–	–	–	–	–	–
Inflammation of the Lungs	–	–	–	–	–	–	–	–	–	–	–	–
Asthma	–	–	–	–	–	–	–	–	–	–	1	–
Disease of the Heart	–	–	–	1	2	–	–	1	1	1	–	1
Aneurism	–	–	–	–	–	–	–	–	–	–	–	–
Varix	–	–	–	–	2	–	–	–	–	–	–	–
Disease of the Bowels	1	–	–	–	–	–	–	–	–	–	–	–
Intestinal Hæmorrhage	–	–	–	–	–	–	–	–	–	–	–	–
Diarrhœa	–	–	–	–	–	–	–	–	–	–	–	–
Disease of the Liver	–	–	–	–	–	–	–	–	–	–	–	–
Inflammation of the Bladder and Kidneys	–	–	–	–	1	–	–	–	–	1	–	1
Syphilis	–	–	1	–	3	–	–	–	–	–	–	–
Orchitis	–	–	–	–	–	–	–	–	–	–	–	–
Stricture	–	–	–	–	–	–	–	–	–	–	–	–
Rheumatism	–	3	–	–	1	1	–	–	1	1	3	–
Disease of the Bones and Joints	–	–	–	–	–	–	–	–	–	–	–	1
Inflammation of the Eyes	–	–	–	–	–	–	–	1	–	–	–	–
Amaurosis and Cataract	–	–	–	–	–	–	–	–	–	–	–	–
Otitis and Deafness	–	–	–	–	–	–	–	–	1	–	–	–
Erysipelas	–	–	–	–	–	–	–	–	–	–	1	–
Scrofula	–	–	–	–	–	–	–	–	–	–	–	–
Bubo (*Symp.*)	–	–	–	–	–	–	–	–	–	–	–	–
Abscess	–	–	–	–	–	–	–	–	–	1	1	–
Ulcer	–	–	–	–	2	–	–	–	–	–	–	–
Eruptions	–	–	–	–	–	–	–	–	–	–	–	–
Dyspepsia and Debility	–	–	–	–	–	–	–	–	–	–	1	1
Œdema	–	–	–	–	–	–	–	–	–	–	–	–
Headache	–	–	–	–	–	–	–	–	–	–	–	–
Wounds and Injuries	1	1	–	–	–	–	–	1	–	–	1	–
Hernia	–	–	–	–	3	–	–	–	–	–	–	1
TOTAL	2	4	1	2	17	1	3	5	4	8	12	11

- - - - - - - - - TABLE, No. 3.

- - - - employed on the MEDITERRANEAN Station.

Malacca.	Marlborough.	Medina.	Meeance.	Orlando.	Pelican.	Phœbe.	Procris.	Psyche.	Queen.	Revenge.	St. George.	Shannon.	Surprise.	Trafalgar.	Trident.	Weser.	TOTAL.
–	1	–	–	–	–	–	–	–	1	–	–	–	–	1	–	–	5
–	–	–	1	–	–	–	–	–	–	–	–	–	–	2	–	–	4
–	1	–	–	1	–	–	–	–	–	–	–	2	–	–	1	–	5
–	2	–	–	–	1	1	–	–	1	1	2	–	–	3	–	–	11
–	4	–	4	–	–	–	–	–	–	–	1	2	–	1	–	1	17
–	–	–	2	–	–	–	–	–	–	–	–	–	–	–	–	–	2
–	–	–	1	–	–	–	–	–	–	–	–	–	–	–	–	–	1
2	12	–	9	2	2	1	–	–	7	10	7	4	1	14	–	–	88
–	–	–	–	–	–	–	–	–	–	–	–	–	–	1	–	–	1
–	–	–	–	–	–	–	–	–	–	–	–	–	–	2	–	–	2
–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	1
–	4	–	5	–	1	–	–	–	1	2	5	–	–	7	–	–	32
–	1	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	1
–	1	–	3	–	–	–	–	–	–	1	–	–	–	–	–	–	7
–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	1
–	–	1	–	–	–	–	–	–	–	–	–	–	–	–	–	–	1
–	–	–	–	–	–	1	–	–	–	–	–	–	–	–	–	–	1
–	–	–	1	–	–	1	–	–	1	–	1	–	–	1	–	1	6
–	–	–	2	1	–	–	–	–	–	–	–	–	–	–	–	–	6
–	2	–	3	–	–	–	1	1	–	1	1	1	–	–	–	–	14
–	–	–	–	–	–	–	–	–	–	–	–	–	–	1	–	–	1
–	1	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	1
1	3	–	5	–	–	2	–	1	–	2	1	4	–	8	–	–	37
–	–	–	1	–	–	–	–	–	1	4	–	–	–	–	–	–	7
–	–	–	–	–	–	–	–	–	–	–	1	–	–	–	–	–	2
–	–	–	4	–	–	–	–	–	–	1	–	–	–	–	–	–	5
–	–	–	1	–	–	–	–	–	–	–	4	–	–	–	–	–	6
–	5	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	6
–	1	–	1	–	–	–	–	–	1	–	1	–	–	–	–	–	4
–	1	–	–	–	–	1	–	–	–	–	–	–	–	–	–	–	2
–	–	–	1	–	–	–	–	–	–	–	–	–	–	–	–	–	3
–	–	–	1	–	–	1	–	–	–	2	–	3	–	6	–	–	15
–	–	–	–	–	–	–	–	–	–	–	1	–	–	–	–	–	1
–	–	–	3	–	–	5	–	–	1	4	1	–	–	3	–	–	19
–	–	–	–	–	–	–	–	–	–	–	–	1	–	–	–	–	1
–	–	–	1	–	–	–	–	–	–	–	–	–	–	–	–	–	1
–	1	–	5	2	–	–	–	1	–	2	5	2	–	2	1	1	26
–	3	1	2	2	–	–	–	–	–	1	1	3	–	3	–	–	20
3	43	2	56	8	4	13	1	3	14	31	32	22	1	55	2	3	363

TABLE, No. 4. - - - - - - - -

SHOWING the Number of DEATHS in each Ship - - - -

CAUSE OF DEATH.	Caradoc.	Chanticleer.	Cockatrice.	Cossack.	Edgar.	Foxhound.	Hibernia.	Liffey.	Magicienne.	Malacca.	Marlborough.
Continued and Remittent Fever	–	–	–	–	–	–	–	–	–	3	–
Scarlatina	–	–	–	–	–	–	–	–	–	–	–
Disease of the Brain	–	–	–	–	–	–	–	–	–	–	–
Delirium Tremens	–	–	–	–	–	–	–	–	–	–	–
Paralysis	–	–	–	–	–	–	–	–	–	–	–
Apoplexy	–	–	–	–	–	–	–	–	–	–	–
Apoplexy from Drink	–	–	–	–	–	–	–	–	–	–	–
Abscess of the Brain	–	–	–	–	–	–	–	–	–	–	–
Inflammation of the Lungs and Pleura	–	–	–	–	–	–	–	–	1	–	1
Phthisis and Hæmoptysis	1	–	1	–	–	–	–	–	–	–	3
Disease of the Heart	1	–	–	1	–	–	–	1	–	–	–
Aneurism of the Aorta	–	–	–	–	–	–	–	–	–	–	–
Hepatitis	–	1	–	–	–	–	–	1	–	–	–
Peritonitis	–	–	–	–	–	–	–	–	–	–	–
Disease of the Rectum	–	–	–	–	–	–	–	–	–	–	–
Enteritis	–	–	–	–	–	–	1	–	–	–	–
Abdominal Tumour	–	–	–	–	1	–	–	–	–	–	–
Dysentery	–	–	–	–	–	–	–	–	–	–	–
Rheumatism	–	–	–	–	–	–	–	–	–	–	–
Disease of the Spine	–	–	–	–	–		–	–	–	–	–
Psoas Abscess	–	–	–	–	–	–	–	1	–	–	–
Abscess	–	–	–	–	–	–	–	–	–	–	–
Wounds and Injuries	–	–	–	–	–	–	–	–	–	–	2
Drowned	–	–	–	–	–	1	–	1	–	–	–
TOTAL	2	1	1	1	1	1	1	4	1	3	6

- - - - - - - TABLE, No. 4.

- - - - employed on the MEDITERRANEAN Station.

Medina.	Meeanee.	Orlando.	Pelican.	Phœbe.	Psyche.	Queen.	Revenge.	St. George.	Shannon.	Surprise.	Trafalgar.	Weser.	TOTAL.
–	1	–	–	–	1	1	1	3	–	–	1	1	12
–	2	–	–	–	–	–	–	–	–	–	–	–	2
–	–	–	–	–	–	–	–	–	–	–	1	–	1
–	–	–	–	–	–	–	–	–	–	–	1	–	1
–	–	–	–	–	–	–	1	–	–	–	–	–	1
–	–	–	–	–	–	1	–	–	–	–	–	–	1
–	–	–	–	–	–	1	–	–	–	–	–	–	1
–	1	–	–	–	–	–	–	–	–	–	–	–	1
1	1	–	–	2	–	–	–	–	–	–	–	–	6
–	1	3	2	1	–	1	2	–	–	–	–	–	15
–	–	–	–	–	–	–	–	–	–	–	2	–	5
–	–	1	–	–	–	–	–	–	–	–	–	–	1
–	–	–	–	–	–	–	–	–	–	–	–	–	2
–	–	–	–	–	–	–	–	–	–	–	1	–	1
–	–	–	–	–	–	–	–	–	1	–	–	–	1
–	–	–	–	–	–	–	–	–	1	–	–	–	2
–	–	–	–	–	–	–	–	–	–	–	–	–	1
–	1	1	–	–	–	–	–	–	–	–	–	–	2
–	–	–	–	1	–	–	–	–	–	–	–	–	1
–	–	–	–	–	–	–	–	1	–	–	–	–	1
–	–	–	–	–	–	1	–	–	–	–	–	–	2
–	1	–	–	–	–	–	–	–	–	–	–	–	1
–	1	–	–	2	–	1	1	2	1	1	1	–	12
1	–	1	4	–	–	–	–	–	–	–	–	–	8
2	9	6	6	6	1	6	5	6	3	1	7	1	81

TABLE, No. 5. - - - - - - - -

SHOWING the Names of the SHIPS; the Average Complement; the Number of Cases; Sick in

C. Commissioned. P. O. Paid off.

Rate.	NAME of SHIP.	Where Commissioned.	When Commissioned.	Number of Guns.	Tonnage.	Horse Power.
First Rate - -	Marlborough - - -	Portsmouth	23 Mar. 1861	121	4,000	S. 800
Second Rates -	St. George - - -	Devonport -	13 June 1860	86	2,864	S. 500
	Trafalgar - - -	Sheerness -	9 June 1859	70	2,900	S. 500
	Queen - - P. O.	Portsmouth	17 Nov. 1859	74	3,249	S. 500
	Edgar - - C. S.	Portsmouth	11 July 1862	71	3,094	S. 600
	Revenge - - C. S.	Portsmouth	1 May 1861	73	3,322	S. 800
Third Rate - -	Meeanee - - - -	Sheerness -	20 Nov. 1862	60	2,591	S. 400
Fourth Rates -	Orlando - - C. S.	Devonport -	17 Dec. 1861	46	3,740	S. 1,000
	Shannon - C. S.	Portsmouth	17 Jan. 1862	35	2,667	S. 600
	Phœbe - - - -	Devonport -	23 Sept. 1862	35	2,896	S. 500
	Liffey - - - -	Devonport -	16 July 1862	39	2,654	S. 600
Sixth Rates -	Magicienne - - -	Devonport -	15 Mar. 1862	16	1,258	P. 400
	Malacca - - P. O.	Sheerness -	3 Sept. 1861	17	1,034	S. 200
	Cossack - - - C.	Sheerness -	19 May 1863	20	1,296	S. 250
Sloops -	Firebrand - P. O.	Woolwich -	2 May 1859	6	1,190	P. 410
	Pelican - - - -	Portsmouth	6 Sept. 1861	17	952	S. 200
	Chanticleer - - -	Portsmouth	11 Dec. 1861	17	950	S. 200
	Icarus - - - -	Sheerness -	23 Nov. 1859	11	580	S. 150
	Trident - - - -	Woolwich -	9 Jan. 1861	3	850	P. 350
Gun Vessels -	Foxhound - - -	Sheerness -	3 Sept. 1860	4	681	S. 200
	Alacrity - - P. O.	Sheerness -	31 Dec. 1859	4	675	S. 200
	Surprise - - -	Devonport -	24 June 1861	4	680	S. 200
	Wanderer - - -	Sheerness -	22 June 1861	4	675	S. 200
	Weser - - - D.	Woolwich -	4 Mar. 1861	6	590	P. 160
Steam Vessels -	Caradoc - - - C.	Woolwich -	16 Jan. 1863	2	676	P. 350
	Psyche - - - -	Woolwich -	18 Oct. 1862	2	835	P. 250
Surveying Vessels	Medina - - P. O.	Malta -	21 Jan. 1859	4	889	P. 312
	Firefly - - - -	Woolwich -	21 Feb. 1860	5	550	P. 220
Gun Boats - -	Cockatrice - - -	Portsmouth	14 Mar. 1861	2	269	S. 60
	Procris* - - -	Devonport -	8 Mar. 1861	2	235	S. 60
Receiving Ship -	Hibernia - - -	Malta -	1 Apr. 1862	–	2,530	–

* No Medical Officer borne.

- - - - - - - - TABLE, No. 5.

the Number of Days' Sickness on Board; and the Average Number of Men Daily each Ship.

C. S. Station changed. D. Returns defective.

Period.	Average Complement.	Average Complement corrected for Time.	Number of Cases.	Number of Days' Sickness on Board.	Average Number of Men Daily Sick.	Ratio per 1,000 of Mean Force of each Ship.	Number discharged to Hospital.
Year - -	1,120	1,120	1,150	9,730	26·6	23·7	27
Year - -	845	845	961	13,980	38·3	45·3	55
Year - -	810	810	1,590	15,205	41·6	51·3	66
1 Jan. to 15 Dec.	810	740	1,763	17,622	48·2	65·1	44
1 Jan. to 31 Mar.	810	200	311	2,939	8·	40·	13
1 July to 31 Dec.	820	410	556	7,211	19·7	48·	11
Year - -	640	640	1,494	14,896	40·8	63·7	61
1 July to 31 Dec.	600	300	481	5,667	15·5	51·6	13
1 Jan. to 30 June	515	255	376	5,461	14·9	58·4	18
Year - -	515	515	722	8,262	22·6	43·8	18
Year - -	540	540	392	8,400	23·	42·5	21
Year - -	250	250	309	2,735	7·4	29·6	12
1 Jan. to 8 Dec.	220	200	180	2,249	6·1	30·5	5
1 July to 31 Dec.	260	130	584	4,522	12·3	94·6	19
1 Jan. to 9 Apr.	200	50	102	962	2·6	52·	3
Year - -	180	180	239	2,282	6·2	34·4	7
Year - -	180	180	367	3,441	9·4	52·2	7
Year - -	140	140	312	2,848	7·8	55·7	9
Year - -	115	115	274	2,498	6·8	58·6	13
Year - -	90	90	94	797	2·1	23·3	5
1 Jan. to 3 Aug.	85	50	106	878	2·4	48·	5
Year - -	95	95	47	757	2·	21·	1
Year - -	90	90	151	1,358	3·7	52·2	—
Year - -	60	60	163	1,165	3·1	51·6	2
1 Apr. to 31 Dec.	60	45	70	585	1·6	35·5	10
Year - -	40	40	125	901	2·4	60·	8
1 Jan. to 9 Nov.	85	70	77	597	1·6	22·8	3
Year - -	90	90	97	1,164	3·1	34·4	5
Year - -	40	40	93	496	1·3	32·5	1
Year - -	—	—	—	—	—	—	—
Year - -	180	180	162	2,117	5·8	32·2	15

TABLE, No. 6. - - - - - - - -

SHOWING the Number of CASES of all DISEASES and - - - - -

DISEASE OR INJURY.	Alacrity.	Caradoc.	Chanticleer	Cockatrice.	Cossack.	Edgar.	Firebrand.	Firefly.	Foxhound.	Hibernia.	Icarus.	Liffey.	Magicienne.
Continued and Remittent Fever	6	8	3	1	31	13	–	4	13	18	65	33	19
Intermittent Fever	–	–	–	35	4	1	1	1	–	1	–	1	–
Small-pox	–	–	–	1	–	–	–	–	–	–	–	–	–
Scarlatina	–	–	–	–	–	2	–	–	–	–	–	–	1
Measles	–	–	–	–	–	–	–	–	–	–	–	–	–
Inflammation of the Brain	–	–	–	–	–	–	–	–	–	–	1	–	–
Apoplexy	–	–	–	–	*a* 1	–	–	–	–	–	–	–	–
Epilepsy	–	–	–	–	–	–	1	–	–	2	2	4	2
Insanity	–	–	–	–	–	–	–	–	–	–	–	–	–
Delirium Tremens	1	–	2	1	–	–	–	1	–	–	–	–	1
Paralysis	–	2	–	–	1	–	–	–	–	1	–	–	–
Neuralgia	–	–	1	–	1	–	–	–	–	–	–	4	1
Inflammation of the Lungs and Pleura	–	2	4	1	8	3	–	4	–	–	1	6	1
Phthisis and Hæmoptysis	–	–	5	–	2	2	–	1	3	6	1	7	4
Catarrh	4	–	47	1	31	17	9	1	4	6	26	104	40
Cynanche	4	4	5	6	6	33	2	3	1	5	5	27	5
Asthma	–	–	–	–	–	–	–	–	–	–	–	9	–
Functional and Organic Disease of the Heart	2	–	–	–	1	3	–	–	1	2	–	3	3
Hæmorrhoids	–	–	–	–	2	1	–	–	1	–	2	1	–
Varix	–	–	–	–	–	1	–	–	–	–	–	2	–
Inflammation of the Stomach and Bowels	–	1	–	–	–	*d* 1	–	–	–	–	–	–	–
Dysentery	–	–	1	–	1	–	–	–	–	2	–	–	–
Diarrhœa	7	5	43	14	114	5	8	–	12	13	8	71	29
Constipation and Colic	4	1	12	1	1	–	4	3	1	4	9	13	–
Inflammation of the Liver	–	–	1	–	–	–	–	2	–	2	–	1	1
Jaundice	–	2	2	2	–	2	–	–	–	–	–	–	3
Splenitis	–	–	–	–	–	–	–	–	–	–	–	–	–
Inflammation of the Kidneys and Bladder	–	–	–	–	–	–	–	–	–	–	2	*e* 4	–
Syphilis	3	1	1	1	10	13	6	–	2	11	5	9	6
Gonorrhœa	1	1	–	–	2	–	6	9	1	4	5	–	3
Orchitis	–	–	1	2	1	6	–	–	1	–	3	4	4
Stricture	–	–	2	–	–	–	2	2	–	2	–	1	3
Incontinence of Urine, &c.	–	–	–	–	–	–	–	3	1	–	–	–	–
Rheumatism	10	1	10	6	28	35	11	3	4	7	25	58	13
Gout	–	–	–	–	–	1	–	–	–	–	–	–	–
Disease of the Bones and Joints	–	–	1	–	–	–	–	1	–	–	2	–	1
Inflammation of the Eyes	1	1	5	–	2	–	–	–	1	9	3	10	3
Amaurosis and Cataract	–	–	–	–	1	–	–	–	1	1	–	1	–
Otitis and Deafness	–	–	1	–	1	–	–	3	–	1	3	5	1
Erysipelas	–	–	3	–	1	2	–	–	–	1	–	1	–
Scrofula	1	–	2	–	–	–	–	–	–	–	–	–	1
Bubo (*Symp.*)	2	3	2	–	5	5	1	2	–	2	1	3	–
Phlegmon and Abscess	20	22	96	6	138	52	17	26	17	24	72	149	82
Ulcer	4	2	21	2	47	52	4	5	2	3	13	86	12
Psora	1	–	18	–	–	1	–	1	–	2	–	30	–
Eruptions, &c.	–	–	3	–	9	6	3	–	–	1	2	8	2
Dyspepsia and Debility	3	5	14	3	16	7	2	3	6	10	14	13	6
Headache, &c.	3	–	1	–	32	–	4	–	–	–	–	30	–
Dropsy	–	–	–	–	3	–	–	–	–	–	–	–	–
Scurvy	–	–	–	–	–	–	–	–	–	–	–	–	–
Worms	–	–	1	–	2	–	–	–	–	–	–	1	2
Phlebitis	1	–	–	–	–	–	–	–	–	–	–	–	–
Purpura	–	–	–	–	–	–	–	–	–	–	–	–	–
Wounds and Injuries	25	8	58	10	77	37	19	17	22	20	39	178	56
Burns and Scalds	3	–	1	–	5	5	2	2	–	–	3	10	4
Hernia	–	–	–	–	–	5	–	–	–	2	–	1	–
Alcoholic Poisoning	–	1	–	–	–	–	–	–	–	–	–	–	–
TOTAL	106	70	367	93	581	311	102	97	94	162	312	888	309

a Coup de Soleil. *b* 1 Aneurism. *c* Hæmorrhage from rectum. *d* Hæmatemesis.

Table, No. 6.

Injuries in each Ship on the Mediterranean Station.

Malacca.	Marlborough.	Medina.	Meeanee.	Orlando.	Pelican.	Phœbe.	Psyche.	Queen.	Revenge.	St. George.	Shannon.	Surprise.	Trafalgar.	Trident.	Wanderer.	Weser.	Total.
20	64	4	53	14	8	32	5	14	2	7	3	–	90	7	–	6	543
–	6	–	11	22	–	19	2	–	2	1	2	–	18	4	2	80	213
–	–	–	–	–	–	–	–	–	–	–	–	–	1	–	–	–	2
–	–	–	8	–	–	–	–	–	–	–	–	–	6	–	–	–	17
–	–	–	–	–	–	–	–	–	–	–	1	–	–	–	2	–	3
–	–	–	1	–	–	–	–	2	–	2	–	–	–	–	1	–	4
–	5	–	4	1	–	1	–	–	–	1	2	–	1	–	–	3	29
1	3	–	1	–	1	1	–	1	1	–	–	1	2	–	–	–	11
–	–	–	1	1	–	2	–	7	1	–	–	–	2	1	–	1	23
–	2	–	2	1	–	–	–	–	–	–	2	–	–	1	1	–	13
–	5	–	1	–	–	–	–	–	–	–	–	–	2	–	3	1	19
2	7	1	6	7	1	8	–	8	–	8	4	–	16	1	1	2	102
1	16	–	8	3	2	3	–	3	6	4	1	2	11	–	–	–	91
17	93	5	197	26	56	33	10	273	128	138	45	3	71	16	11	2	1,409
4	67	–	42	15	–	18	2	60	7	7	15	2	83	6	2	3	439
–	–	–	–	–	–	–	–	–	–	1	–	–	1	–	–	–	11
–	4	2	14	–	–	5	–	3	2	8	3	–	8	–	–	–	64
–	1	1	10	1	–	1	1	1	1	1	1	1	–	–	3	1	31
–	1	–	3	–	–	1	2	–	1	–	–	–	1	–	–	–	12
–	–	–	–	1	–	–	–	–	–	1	1	–	–	–	1	–	6
–	1	–	3	2	–	–	2	–	–	–	–	–	–	–	–	1	13
11	51	6	93	84	15	30	24	145	30	62	11	4	76	30	13	7	1,021
1	5	2	27	17	–	27	4	30	–	–	–	–	11	–	6	–	183
1	–	–	–	–	–	1	–	2	–	2	–	–	1	1	–	1	16
1	2	–	–	–	1	1	1	–	–	4	–	–	9	–	–	–	30
–	–	–	1	–	1	–	–	–	–	–	–	–	–	–	–	1	3
–	–	–	–	2	–	–	–	–	–	–	–	–	2	–	–	–	10
–	19	–	27	37	3	9	3	18	4	28	4	4	14	5	1	3	247
1	11	2	7	5	3	5	–	39	–	7	–	2	10	3	1	–	127
–	8	–	16	5	3	9	1	5	3	12	3	–	17	8	2	6	121
–	5	–	4	1	1	1	1	6	2	4	–	1	1	–	–	–	39
–	–	–	5	–	1	–	–	3	1	–	–	–	–	–	1	–	15
8	78	2	99	22	12	35	6	96	67	39	10	4	84	19	15	3	810
–	–	–	1	–	–	2	–	2	–	–	–	–	1	–	–	–	7
–	3	–	2	1	–	–	1	–	1	6	–	–	–	–	–	2	21
–	8	2	20	1	10	7	–	8	2	7	3	1	10	–	1	–	115
–	–	–	2	–	–	–	–	–	2	–	3	–	–	–	–	–	11
–	5	–	8	–	–	–	–	–	–	8	–	–	–	–	–	–	36
–	19	–	–	7	–	–	–	–	–	–	2	–	8	–	1	–	45
–	2	–	1	1	–	1	–	4	–	–	–	–	–	–	–	–	13
4	8	–	19	–	–	7	–	2	1	5	1	–	7	4	–	–	84
63	215	10	296	76	71	237	22	417	124	241	76	6	381	80	24	11	3,071
5	75	5	137	30	3	71	5	140	57	84	56	2	132	9	3	4	1,071
–	8	–	10	–	–	1	–	3	1	–	–	–	3	–	–	–	79
–	*f* 22	–	55	1	2	5	–	7	3	31	10	1	10	3	–	–	184
2	32	6	39	5	–	39	3	81	14	8	5	–	225	34	15	8	618
–	–	–	27	–	–	–	16	–	2	–	–	–	3	–	3	–	121
–	–	–	6	1	–	–	–	–	–	1	3	–	1	1	–	–	16
–	–	–	–	–	–	–	–	–	–	–	–	–	1	–	5	–	5
–	–	–	–	1	2	–	–	–	1	1	–	–	1	–	–	–	12
–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	1
–	–	–	–	2	–	–	–	–	1	–	–	–	–	–	–	–	3
35	277	26	215	80	42	105	14	*g* 370	89	227	106	13	255	58	31	16	2,505
3	15	2	9	7	1	5	–	13	3	4	1	–	11	3	2	1	115
–	7	1	3	1	–	–	–	–	2	1	2	–	4	–	–	–	29
–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	1
180	1,150	77	1,494	481	239	722	125	1,763	556	961	376	47	1,590	274	151	163	13,844

e Calculus. *f* 1 Varicella. *g* Effects of submersion.

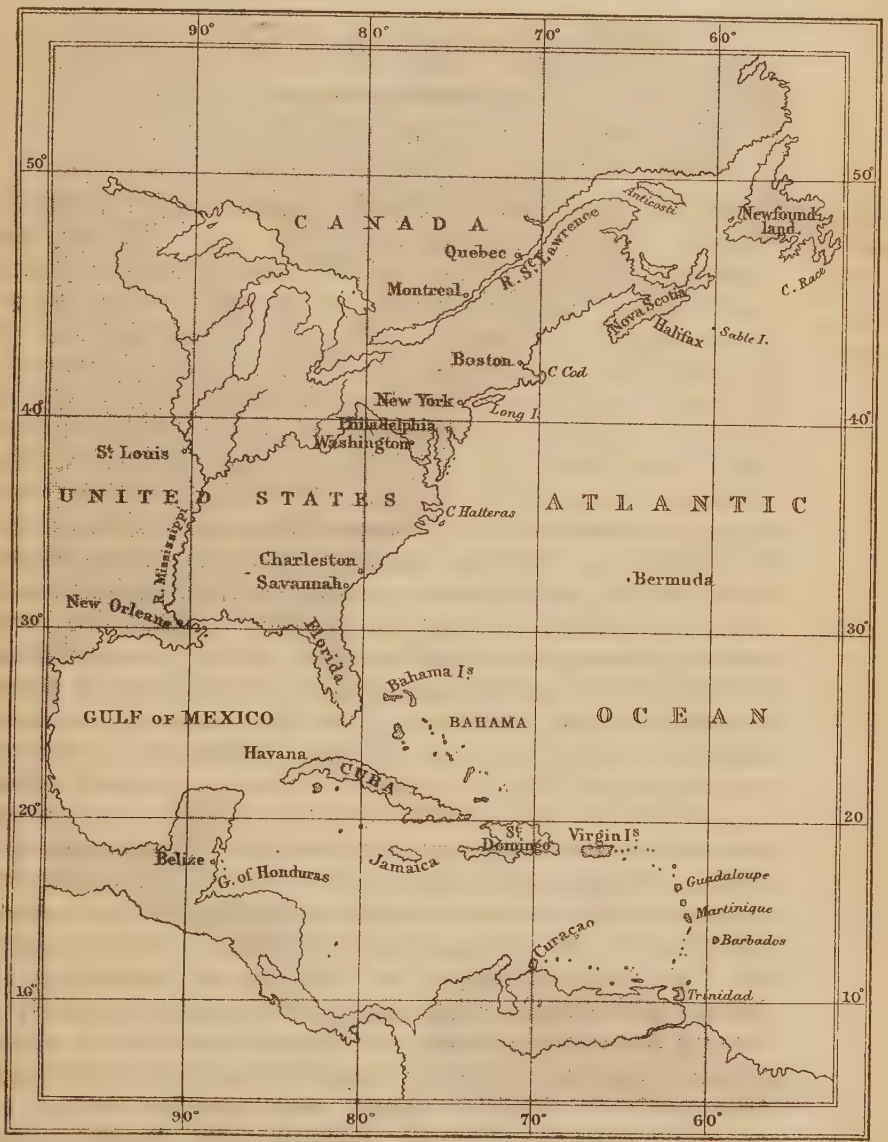
NORTH AMERICA AND WEST INDIES.

North American and West Indian Station.

The mean force on the North American and West Indian Station, corrected for time, was 7,050 men. The squadron consisted of thirty-two vessels. Of these, one was a line-of-battle ship of the second-rate; there were eleven frigates, seven being fourth-rates, and four sixth-rates; twelve sloops, six gun-vessels, one floating battery, permanently stationed at Bermuda; and a receiving ship stationed at Port Royal, Jamaica. The time included in the returns from the different ships varies from a little over two months to a year, but a large majority are for the whole year. Excluding the stationary ships, the vessels showing the smallest ratios of sickness were the Challenger, the Vesuvius, the Nimble, and the Medea; while the largest sick-rates appear in the returns from the Virago, the Lily, the Rosario, and the Peterel. The Virago was only three months on the station during this period, and a large majority of the cases under treatment were of a comparatively trivial character. The Lily was very variously employed during the year. In the Midsummer quarter she was cruizing off the north coast of Cuba, occasionally calling in at Matanzas, Havanna, for coals and provisions; and during the remainder of the year she was either at Halifax, or at Fortress Monroe, in Virginia. She suffered very little from climatic disease, or indeed from any severe form of sickness. The Rosario was, during almost the whole year, employed in the West Indies, principally at Port Royal, Jamaica, at Havanna, and Nassau. During the Michaelmas quarter, on leaving Nassau on a cruize, the vessel was visited by an epidemic of continued fever. Sixty-five persons, rather more than half the ship's company, were attacked during this epidemic, which fortunately was, in other respects, a mild one. Some of the cases, however, were tedious, the average duration of each being about ten days. Cases of diarrhœa, and catarrh also, were rather prevalent in the vessel. The Peterel, also, was almost altogether employed in the West Indies.

NORTH AMERICAN AND WEST INDIAN STATION.

(To face p. 70.)



Indies. Catarrh and diarrhœa are the most prominent affections in her returns. A good many cases of fever, of a mild remittent or ephemeral type, occurred during Michaelmas quarter; but, on the whole, there was very little severe disease in the ship.

About twenty-two men, or in the ratio of 3 per 1,000 of mean force, were daily under treatment for febrile diseases. This is considerably below the ratio of the preceding year. The number daily sick from diseases of the brain and nervous system was three; from diseases of the respiratory organs, thirty-two, nearly one-half of whom were labouring under common catarrh or influenza. From diseases of the alimentary canal, the average daily loss was in the ratio of 2·4 per 1,000; of diseases of the genito-urinary organs, 5·7, almost all venereal diseases; from rheumatism, 2·8; from boils, abscesses, and ulcers, 10·7; and from wounds and injuries of various kinds, 8·6. The total number daily sick on board ship and in hospital was about 320 men, or in the ratio of 45·3 per 1,000 of mean force, which is a reduction, as compared with 1862, of 10·9 per 1,000.

The total number of cases of all diseases and injuries placed on the sick list throughout the year was 10,668, or in the ratio of 1513·1 per 1,000 of mean force. Of these, 186 were invalided, and 56 died, the former being in the ratio of 26·3 and the latter of 7·9 per 1,000. All these ratios are much below those of the previous year, particularly the death-rate, which, from the absence of any epidemic of yellow fever, amongst other causes, is 12·3 per 1,000 under that of 1862.

Fevers.—Six hundred and ninety-eight cases of fever, of a continued or remittent type, were under treatment during the year, of which seven required to be invalided, in consequence of the cachectic condition in which the patients were left by the disease, and four had a fatal termination. The ratio of cases per 1,000 of mean force is 99·; of invaliding, ·9; and of deaths, ·5. These ratios are very much under those of the preceding year, when the ratio of cases was 121·9; of invaliding, 1·3; and of deaths, 4·8. The average ratio of cases of fever, exclusive of yellow fever and the exanthemata, taken for a period of seven years (1856 to 1862 inclusive), is 136· per 1,000. The vessels which suffered most were the Barracouta, Galatea, Immortalité, Jason, Peterel, Phaeton, Rosario, and Terror.

 There

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There were forty-one cases of primary fever in the Barracouta, twenty-four of which are returned as of the continued, and seventeen of the remittent type. The average duration of each case of the former on the sick list was eight days; of the latter, about thirteen days and a half. All the cases of remittent fever occurred during the Midsummer quarter, and appear to have been a continuation of an epidemic which commenced in the preceding quarter, during which period the disease is returned as yellow fever. Six cases of yellow fever appear in the returns for Lady quarter, of which one had a fatal termination. The ship was then employed amongst the Bahama Islands, her head-quarters being Nassau, which place, however, was quite free from yellow fever, although the inhabitants were suffering a good deal from remittent fever. The first case of so-called yellow fever placed on the sick list occurred in a boy who had the look-out duty at the mast-head, from twelve to one, p.m., of the 28th February, when he was exposed to the powerful rays of the sun striking directly upon him. He was seized on the following morning with violent headache, and was in a delirous or unconscious state during the whole period of the attack. There was yellowness of the conjunctiva, and, for some hours before death, a black grumous fluid welled out of the mouth without effort. Immediately after death decomposition set in, the body rapidly inflated, the skin became black, the extremities mottled, and the face of a dirty yellow colour. This appears to have been a case of malignant fever, induced by insolation. The other five cases that occurred about this time, all of which recovered under the influence of quinine, appear to have been ordinary cases of remittent fever, varying in symptoms in different individuals. In one, recovery was protracted by the supervention of dysentery. From the 1st of March to the 18th of May, including the six cases of so-called yellow fever, twenty-three cases of fever altogether were under treatment, of which seventeen, as before stated, are returned as remittent; but there can be little doubt that they were all, with the exception of the first case, of the same type.

Towards the end of the Michaelmas quarter, and throughout Christmas quarter, fever of a continued character was the principal complaint on board, and is attributed by the surgeon* to the change of climate encountered on re-entering

* Surgeon George Newton.

entering the tropics after having been for some months employed on the northern part of the station. In many cases the fever was of a trivial and ephemeral character; but some were more severe, being usually ushered in by a rigor lasting from a few minutes to an hour, followed by severe headache, pain in the back, anxious and contracted countenance, watery eyes, great weakness and unsteady gait, and feelings of languor, and lassitude. The pulse varied, the tongue was foul; there was nausea, with occasional vomiting; a hot burning skin, great thirst, and a quick full pulse. The persons mostly affected were boys and ordinary seamen of excitable temperament and irritable habit of body. Some cases were distinctly traceable to exposure to the direct rays of the sun, while coaling, or exercising in the dockyard at Port Royal.

The Galatea was chiefly employed amongst the West India Islands and in the Gulf of Mexico, but during the Midsummer quarter she was at Bermuda and Halifax. Fifty-three cases, altogether, of primary fever were under treatment, forty-five of which were of an ephemeral nature. Of the remaining eight cases, six were of the continued and two of the remittent type. The average duration on the sick list of the cases of ephemeral fever was six days, while each case of continued fever averaged twenty days. Both cases of remittent fever were sent to hospital after being four days on the sick list on board. One case of continued fever had a fatal termination. The patient was a stoker, of dissipated habits, and death appeared to be caused by effusion on the brain. There was no post-mortem examination of the body, however.

In the Immortalité there were ninety-four cases of primary fever. Of these, one, a case of continued fever, was ten days under treatment; eighty-four were cases of ephemeral fever, each averaging in duration about eight days on the sick list; and nine were cases of the ordinary remittent fever of the station, with an average of eighteen days on the list. Upwards of sixty of the cases of ephemeral fever were contracted at Bermuda, and were examples of what is described as dengue, or broken-bone fever. Very little information is furnished from this vessel with reference to the epidemic of this peculiar fever which visited the island of Bermuda at this time; but its origin on board the Immortalité is traced to having received some supernumeraries from the Terror, in which vessel the disease was prevailing. As the medical officer of the Terror enters at some length upon the history and features of the epidemic, it may be well at once to

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to give his account of the cases of fever that came under his notice. Ninety-seven cases of primary fever appear in the returns of the Terror, all of which are entered as "Febricula, dengue." Ninety-two of these occurred during the Christmas quarter, and the average duration of each case on the sick list was between four and five days With reference to these cases the medical officer* of the Terror has the following observations:—

"From the middle of September till the end of December we suffered severely from an epidemic of febricula, called by American authors dengue, break-bone fever. The disease had been epidemic at Matamoras, in the month of June; had been raging in St. George's during the latter part of the month of August and in September, and had spread from thence to Hamilton and Ireland Island, reaching the latter about the middle of October. The crews of the gun-boats engaged in surveying the harbour of St. George's were first affected, and to the transmission of cases from thence, the origin and subsequent progress of the complaint in this ship can be distinctly traced. The first case coming under notice was that of a boy received from the Nettle gun-boat on the 12th of September, who was sent almost immediately to hospital, under the idea, though doubtless an erroneous one, that he laboured under acute rheumatism. On the 17th of October other two cases were received from the same source, and as they seemed of mild type they were retained on board. On the following day the fever appeared among our own ship's company, and gradually increased till the last week in October and beginning of November, when it again subsided, to be again increased suddenly on the second week of November. From the second week of November to the end of the month it continued high, and then began to subside, but even now (31st of December) we cannot be said to have got rid of it, as five cases of a mild form are at present on the sick list. Corresponding to the rise and progress of the disease, as sketched above, was its severity, the cases in the rise and decline of the epidemic being much milder than when it was approaching or receding from its acme. As in all epidemics, considerable variety was observed during the progress of this one; from slight indisposition, scarcely incapacitating for duty, and with feebly-marked symptoms, to grave and high fever, lasting for a fortnight with urgent and severe symptoms. Ninety-two cases were admitted to the sick list; of these sixty-two were residents, temporarily or permanently, in the Terror; seventeen were from the marines hulked in the Medway, ten from the two gun-boats, and three from the Spitfire. But these numbers inadequately represent those affected, for I have reason to believe that out of forty-two, which constituted the crews of the gun-boats, probably not more than four or five escaped; and I am certain that seven or eight on board the Terror were so trifling that admission to the sick list was not

* Dr. Alexander Crosbie, Assistant Surgeon.

not sought. Indeed when mustering at quarters I could only pick out three or four of the ship's company—numbering 65, but varying considerably in this respect—who had not caught the disease, and all of these men had suffered in a former epidemic.

"The largest number added in one day was five, and the largest number at one time on the sick list was fifteen. Second attacks occurred in six instances, and a third in one case. I have named the disease febricula, and look upon it as a continued fever, frequently exhibiting irregular remissions and exacerbations, attended by a characteristic measly rash, lasting from one to two days, and terminating by, or gradually without, crisis; but often running on to seven, ten, or fifteen days, having its origin in, and propagation dependent on, a specific infectious or contagious poison.

"Medical men resident here regard this fever as a phase or development of yellow fever, and support this opinion by the facts —that the symptoms of severe cases cannot be distinguished from those of mild yellow fever; that the epidemic has frequently prevailed along with yellow fever, and has appeared to exempt those who have laboured under it from the latter disease; that the two diseases are limited geographically in a similar manner, and arise and spread in an analogous way. That the disease is contagious I am led to believe from its origin, and from the manner and method of its diffusion, as well as from its analogies; and I will now give the grounds for such a belief, gathered from observations made on board the Terror during its prevalence.

"On the 17th of October two cases were sent from the gun-boat at St. George's, both undoubted cases of dengue, and on the following day a boy was affected. From this time the complaint gradually increased. Now at this time a few cases occurred in the garrison at Ireland Island, showing that in both instances the fever followed the line of traffic, or intercourse, for the Terror received the disease directly, and the soldiers had frequent communications with their head quarters at St. George's, where the disease prevailed. For some time the disease was limited to these two sources, the inhabitants generally, and the ships in harbour entirely escaping.

"The first indication of the illness in the afterpart of the ship was in a boy attending in the ward-room berth, who was seized on the 21st of October, and the other boys, three in number, were successively attacked. Three of the ward-room officers were then seized, and in a short time three warrant officers; subsequently the remaining ward-room officers suffered. When I was ill a supernumerary medical officer officiated for me, and in five days he was down with the fever.

"An assistant engineer joined the Terror on the 29th of November, from the Royal Naval Hospital, and was laid up on the 6th of December. Another assistant engineer, who had joined on the 26th of November, from the Lily, in which ship there was no dengue, was seized with the fever on the 9th of December. Both had mingled freely with the convalescent warrant officers in the after part of ship. A boy from the Lily joined the Terror on the 5th of December; on the evening of the 14th the premonitory symptoms appeared. Analogy would lead us to class this fever as a contagious

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or infectious disease; high febrile symptoms, with a characteristic eruption belonging peculiarly to the infectious group, and the whole symptoms being indicative of a blood poison working its effects on the system.

"*Symptoms.*—In a few instances prodromata are present (a slight headache, wandering pains, and feelings of malaise), and precede the attack for a few days; but in the majority of cases the seizure is quite sudden. Severe frontal headache and pain in the eye-balls, followed by pain across the loins, and wandering pains in limbs and trunk come on; rigors follow; the pulse, increased in force and frequency, varies from eighty to 120 in a minute; the skin becomes hot, dry, and harsh; a measly eruption appears over the flanks, and quickly spreads over the surface of the body; the appetite is lost, the thirst becomes urgent, the bowels confined, the eyes suffused, the face flushed; vertigo, unsteady motion, and tendency to syncope appear, debility and oppression become marked, and nausea with vomiting is often severe. In from twenty-four to forty-eight hours the symptoms become modified, the pulse falls, the aches and pains are lessened; the skin, though still hot, becomes moist, and secretes a copious sour-smelling sweat, like that of rheumatic fever; the secretion of urine, which had been almost stopped, again returns, and convalescence is speedily established.

"While such is the usual procedure of the symptoms, the progress is liable to many variations. The convalescence, instead of being permanent, may be followed by an increase of symptoms resembling in a minor degree those of the seizure, and irregular remissions and exacerbations may last for a fortnight before convalescence is finally established, or the disease may terminate after one, two, or more remissions from the fourth to the fifteenth day.

"The symptoms also vary very greatly in relative severity. The frontal headache is always present, and the lumbar pain is frequently shifted to the sacrum, or to the interscapular space. The flying pains are sometimes slight, sometimes severe, and resident in the larger, but occasionally in the smaller joints. Shooting pains through the temples are common; vertigo is often severe and syncope imminent, but frequently there is only a slight giddiness. In only one instance have I met with delirium. Oppression, always present at first, soon passes off, and debility is always apparent, unless in very mild cases. Cough, with expectoration, is sometimes met with, and this seems to vary inversely as the other symptoms. The pulse, at first small and labouring, frequently irregular in force and frequency, soon becomes fuller and regular, though it may again become irregular and even intermittent for a short time without apparent cause. The tongue frequently remains clean and natural; oftener it is covered with a thick, white, or yellowish blanketty fur, red at the edges and tip, with red projecting papillæ, or is only slightly furred, and in severe cases becomes brown and dry. The appetite is at first totally lost, and generally is soon recovered, though when complicated with other symptoms referable to the digestive organs, long remains in abeyance.

"Irritability of stomach with constant nausea and vomiting of a mucous or bilious fluid is frequent, and much complicates and prolongs

longs the case, and it may be either present at the beginning or supervene during the course of the disease, rendering the treatment difficult and unsatisfactory. Diarrhœa is sometimes observed, but does not appear to be critical; it frequently lengthens a case.

"The sense of taste is always much deranged, and the patient has advanced in recovery before it becomes normal. The eruption or rash is an early symptom, showing itself in a few hours after the date of attack or rigors, but it is often delayed to the third or seventh day, but may appear on any intervening one. It consists of very minute red papillæ, which gradually increase in numbers to coalescence, and form irregular rings or serrations, of a reddish purple colour, which partially disappears on pressure, leaving a brownish yellow stain; the irregular rings are from half to a quarter of an inch in diameter, and the enclosed integument is unaffected; the breadth of the discoloration is one-sixteenth of an inch. It much resembles the rash of measles, and frequently seems identical with well marked typhus eruption. Varying in appearance, however, from bright reddish purple to faint staining of a brownish yellow colour, it frequently co-exists with brownish red efflorescence of the forearms, thighs, limbs, and neck, and commonly this reddish colour affects the integuments of the hands and feet some time during the disease, and owing to this, desquamation of the cuticle of the hands and feet, especially of the flexor surfaces, is frequent during recovery. Erythematous patches are frequently observed over the surface, and are very fugitive. Co-existing with the rash occasionally, are boils, or scattered vesicles and pustules over limited surfaces, and sometimes true petechiæ over the ankles and legs, unaltered by pressure. As in all febrile diseases, sudamina are common, and a syphilitic eruption may be present when the rash appears and continue unaffected by it. The early and copious eruption betokens a mild and speedy case, and invariably terminates quickly in health, if accompanied by the red efflorescence; when the rash is ill-formed, delayed and irregular, or varying, the case becomes remitting and tedious. I have detected traces of the rash ten days after recovery. The copious sweats frequently appear critical, and usher in convalescence, but often they are irregular, delayed, and absent, especially when the disease becomes lengthened. This secretion always has the sour smell so invariably met with in rheumatic fever, and is acid to test paper. The urine is always scanty and high coloured, and contains no albumen, bile, or sugar; but the secretion was only tested in a few instances. Increase in quantity accompanies recovery. In only one case have I seen the urine much increased.

"These then are the symptoms, with the more common variations, briefly and imperfectly related, They are not intended as a standard description of the dengue or break-bone febrile symptoms, but merely as outlines of the character of the epidemic which has passed over us. Doubtless the epidemic constitution of this fever will vary much in different seasons, as all epidemics vary.

"What must force itself on every one in this disease is the great and constant variety of symptoms exhibited, a variety which, as far as my experience and reading go, is met with in no disease except yellow

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yellow fever. Might not this variety in symptoms be adduced as an argument in favour of the opinion held by medical men in practice here who have experienced both diseases so called, that the break-bone fever is merely a phase of yellow fever? Whatever ultimate opinion may be arrived at regarding the relation of these two diseases, much interest would, I am convinced, accrue from a thorough investigation of this fever,—dengue.

"The treatment adopted in the epidemic consisted in the exhibition of diaphoretics, with an emetic in the first instance, if necessary. The more prominent symptoms were met as they arose; and though stimulants were unnecessary, we yet were prepared with them, ready to tide the system over the period requisite to rid itself of the disease. Emetics seemed to break the febrile symptoms and shorten the disease, but this we must be cautious to accept as true; for in many instances the disease terminated quite as speedily and well without any direct treatment, except rest and attention to regimen. During the convalescent stage quinine was of the utmost value. The severer cases were sent to hospital."

This very excellent description of dengue as it appeared in the epidemic which visited Bermuda during this year is valuable from the concise and yet detailed manner in which the symptoms and their varieties are enumerated. It is to be regretted that the strikingly characteristic phenomena by which this fever is attended, should have failed to exempt it from being considered as a phase of yellow fever. To say that the symptoms of severe cases cannot be distinguished from those of mild yellow fever, is saying little more than that they cannot be distinguished from those of any other fever, for yellow fever in its symptoms may be as mild as any ephemeral fever, and yet confer as perfect an immunity from a second attack as the most virulent seizure; just as it does not require small-pox to assume the confluent form, in order to confer upon the affected person exemption from a repetition of the disease. And this meets the second fact adduced as an argument in favour of dengue being a mild form of yellow fever, viz., that it has frequently prevailed along with yellow fever and has appeared to exempt those who have laboured under it from the latter disease. In every epidemic of yellow fever there is a certain proportion of cases presenting symptoms of varying character and severity which are liable to puzzle the medical officer, and these, which are mere modifications of yellow fever, will be found classified as remittent fever, continued fever, or febricula. Numerous examples of this are to be found in the returns sent into this office, in not a few of which the medical officers have stated, that failing to classify the cases to their satisfaction, they have only returned those as yellow fever which had a fatal termination, all others, although

although occurring at the same time, being classed as continued or remittent. It is in this way, doubtless, that during an epidemic certain anomalous cases of the specific disease have been returned as cases of dengue, and the subsequent immunity enjoyed by those so affected, from an attack of the more fatal disease, has through this misapprehension been accepted as a proof that dengue was no other than yellow fever in a mild form.

But assuming dengue to be no other than a mild form of yellow fever, and viewing the question from the mere point of probability, it is not, to say the least of it, likely that a wide spread epidemic of fever should exist in which every individual case would present itself in a mild form. Here and there, at least, one case with distinct and violent or fatal symptoms of the specific disease would show itself and allow of no mistake as to its true character; but there was not a single case of yellow fever in Bermuda in 1863, nor indeed can it be said that there was an undoubted case of yellow fever in the whole West Indian Squadron. Moreover, dengue has prevailed in Burmah, and in various localities in the East Indies, where yellow fever has never yet made its appearance. These facts, added to the very peculiar features which dengue presents, are so conclusive, that it would appear unnecessary to waste time in adducing arguments calculated to dispel any idea of a connection between the two diseases. The whole subject of yellow fever, however, has been surrounded by so much that is fallacious and misleading, that it is absolutely necessary to combat every error, however palpably absurd it may appear.

There were fifty-one cases of primary fever in the Jason, all of which are entered in the returns under the head of remittent fever. The average duration of each case on the sick list was about ten days. All these cases occurred during the Christmas quarter at Bermuda, and were examples of dengue or broken-bone fever, which, as stated above, was epidemic in that island at the time. The surgeon of the Jason,* in the quarterly return for this period, says:—

"Upwards of 500 of the 708 days sickness contributed by fever to this return are due to the epidemic of November at Bermuda, where it is commonly spoken of as 'broken-bone fever.' A few cases were spoken of on our arrival as occurring at St. George's and Hamilton; and the day after leave had been granted, the ship's steward

* Surgeon R. W. Beaumont.

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steward got an attack of fever, which proved to be the first case, and four days after, one of the blue jackets was seized with it. Later it affected those who had been on leave, and those who had not been out of the dockyard."

With reference to the eruption, he states that it occurred in nearly 50 per cent. of the cases, and was frequently preceded by urticaria:—

"It varied very much, resembling mostly measles, scarlatina, erythema, or even petechiæ, and erysipelas. Furfuraceous desquamation usually followed, and in some cases affection of the glands of the neck or groin, even to suppuration. The fever lasted from two to four days, and varied from the most intense to the least possible disturbance; in one case globus hystericus, with weakness, was the chief symptom."

In the Peterel there were forty cases of primary fever, sixteen of which were ephemeral in character, and the remainder remittent. The average duration of each of the ephemeral cases on the sick list was three days, of the remittent fourteen days. Some of the remittent cases were severe, but nearly all yielded to quinine and moderate stimulation. Splenic congestion was common, and in one case the liver also became engorged.

The were ninety-four cases of primary fever in the Phaeton, nineteen of which are classed as continued, four as remittent, and seventy-one as ephemeral fever. The average duration of each case of continued fever on the sick list was twelve and-a-half days, of the remittent cases nineteen days, and of the ephemeral fever five days. Some of the cases of remittent fever were of considerable severity; and the surgeon* speaks very highly of a method of treating them with sesquicarbonate of ammonia and chlorate of potash.

There were seventy-six cases of primary fever in the Rosario. Sixty-one of these occurred during the Michaelmas quarter, when a continued form of fever became epidemic in the ship. The assistant surgeon† of the Rosario, in his remarks for the month of August, makes the following statement with respect to this epidemic:—

"Hardly had we left Nassau when febricula broke out amongst the crew, and during the month, not less than forty-four cases occurred. In almost every instance the disease was ushered in by vertigo and weakness in the limbs, rendering the patient unable to stand

* Dr. J. T. Caddy. † Assistant Surgeon Mulvany.

stand upright, The vertigo usually lasted from four to six hours, when it gave way to severe headache. The pain was usually situated in the forehead, and compared by the sufferer to the sensation produced by holding the forehead close to the fire. In the more severe cases, simultaneously with the headache, severe pains in the loins came on, and extended down the backs of the thighs as low as the knees; in many cases there were nausea, eructations, vomiting, or efforts to vomit. These symptoms, however, were easily remedied by a few drops of chlorodyne, given in an effervescing draught. The patient had a peculiarly anxious appearance; the pulse was quick but compressible; the tongue foul, coated white in the centre and to the margins, or having a brown streak in the centre with the tip and margins red. Bowels confined, thirst, loss of appetite, high-coloured urine, much dejection of spirits, and a great disinclination to perform any exertion, however trivial. In a few cases the symptoms became much more aggravated; the tongue, teeth, and lips were covered with a dirty brown sordes, and the breath was very offensive. The treatment consisted in opening the patient's bowels with a brisk purge, as soon as vertigo was complained of, and then giving calomel in combination with antimonial, or Dover's powder, three times daily. In twenty-four hours the character of the head ache became modified; instead of being intense and frontal, it became dull and less circumscribed, and about the third day had generally disappeared; the pulse became normal, the skin cool and moist, and the patient more cheerful. Quinine and wine were then given, and in a few cases the prostration was so great that brandy was prescribed. Those patients who were first attacked suffered much more than the others, the disease appearing to expend its force as it became more disseminated amongst the crew. As a preventive, I myself experienced the inutility of quinine, as did also most of the officers. The average duration of the disease was about six days."

The total days' sickness, however, from all the cases that occurred at this time was 604, which gives an average duration of about ten days to each case. This epidemic occurred while the vessel was cruising in the vicinity of Nassau, the first case having been placed on the sick list on the first evening of their being at sea. Nassau itself was comparatively healthy at the time.

Of the other cases of primary fever that occurred in this ship, one had a fatal termination. This took place at Havannah in the month of January, in the person of the wardroom steward, who had recently joined the ship at Port Royal, where he had been for some time in a state of utter indigence, and had for a long time previously undergone every kind of privation. His constitution was in consequence so completely broken down, that although the fever by which he

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was attacked was by no means of a severe type, he had not sufficient strength to cope with it.

There was a fatal case of remittent fever in the Styx. It occurred in the person of a stoker, who, while on leave at New Orleans, had been drinking a great deal, and on his going on board his ship, went to sleep in the stokehold in a strong current of air. Rigors with cough and diarrhœa were the earlier symptoms. These were in a great measure relieved, when delirium set in, with loss of power over the sphincters. From this condition also he in a great measure recovered, but a state of extreme debility and emaciation followed, despite the free administration of nourishment and stimulants, both of which were taken greedily. Finally, coma and convulsions preceded death.

Yellow Fever.—Nine cases of this fatal form of fever appear in the returns of the squadron. Of these six were in the Barracouta, two in the Phaeton, and one in the Shannon.

The cases in the Barracouta have been already referred to. They were examples of the ordinary remittent fever of the station, varying in severity in different individuals.

Of the two cases that appear in the returns from the Phaeton, both of which terminated fatally, one appeared in the month of January off Dominica, and the other in April off the Windward Islands. The first case occurred in the person of a non-commissioned officer of marines, and was an undoubted case of malignant remittent fever, complicated with ulceration of the stomach. The man himself attributed the attack, which commenced with all the features of ague, to sleeping exposed to the night breezes at the town of Santa Lucia while on leave. The case was characterised by pain at the epigastrium, and great irritability of the stomach, this latter symptom being so severe that nothing could be retained. The vomited matter became at last of a black coffee-ground colour. He had suffered from gastric symptoms of a similar nature on a previous occasion when serving in China. On post-mortem examination of the body, a small ulcer was found in the stomach, the mucous membrane of which was softened.

The second case occurred in the person of an ordinary seaman, who had felt faint on parade on shore at Barbadoes, and who appears, while on leave there, to have drunk raw spirits

spirits in great quantity, his custom being on such occasions to drink to excess at once. On his last going on leave he is stated by his messmates to have swallowed a pint of raw spirits, at one draught. Under these circumstances he presented himself complaining of severe frontal headache and loss of appetite. There was much heat of scalp, a feeble pulse, and collapsed features. A stimulating and nourishing treatment, with the administration of ammonia and chlorate of potass, in which the surgeon placed much confidence, was had recourse to without avail. The comparatively mild febrile symptoms by which he was attacked were too seriously complicated with alcoholic poisoning to admit of any remedies acting beneficially.

A case returned as yellow fever occurred in the person of a midshipman of the Shannon, who died in the Royal Naval Hospital at Jamaica. The nature of this case is perhaps best given in the report of the Deputy Inspector General* of the hospital.

"The Shannon arrived here from Bermuda on the 13th instant, where she had been a week, having gone there from Halifax. At Bermuda, and in some of the ships there, there was a good deal of break-bone fever, but there were no cases in the Shannon, either there or on the passage to this place. She left Bermuda on the 5th, and was eight days coming down, her crew being all healthy. On the 17th, four days after her arrival, she sent to hospital a midshipman said to be labouring under enteritis; he had been attacked on the evening of the 15th with violent vomiting and severe griping pains of abdomen; on the 16th there was severe abdominal pain with tenderness, with a quick pulse and prostration; on the 17th, in the morning, he was sent to hospital, at which time there was great tenderness over the abdomen, more particularly over the lower portion, with great acceleration of the pulse; tongue moist, coated with a brown fur; stomach very irritable. Being stout and of full habit, six ounces of blood were taken from the arm; calomel and opium given, and fomentations used to the abdomen. Shortly after admission to the hospital he vomited some dark matter, which was followed by great prostration and restlessness, succeeded by delirium; and in the evening by the vomiting, in large quantities, of more dark matter. The bowels did not act after admission, but had done so shortly before. There was retention, but not suppression of urine; the sp. gr. was 1·030; it contained no albumen. When admitted into hospital there was no suspicion of its being a case of yellow fever, there having been no fever at all in the ship, and some

* Deputy Inspector General R. Mason.

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some of the more constant symptoms, frontal headache, lumbar pains, suffusion of the eyes and skin, being altogether wanting. The patient had been at a cricket match a day or two before leaving Bermuda, when he is said to have been somewhat excited in consequence of an altercation with a cabman; and on the 14th and 15th he had been employed at Port Royal on ordinary boat duty, but it does not appear that he underwent any unusual exposure to the sun. No examination was made of the body, but after death a large quantity of the black vomit came away by the mouth."

The only symptom of yellow fever in this case was the vomiting of a black fluid, a symptom not by any means invariably present in yellow fever, and which has been observed in other diseases. Post-mortem examination of the body would doubtless have revealed the true cause of all the symptoms. Judging from the history of the case in its earlier stages, this seems to have been inflammation of some portion of the intestinal canal, most probably the caput cœcum coli,—typhlitis. The senior assistant surgeon* of the Shannon states, that from the obstinate constipation, and the great increasing abdominal pain, he apprehended obstruction somewhere of the bowel, and examined him for hernia, but finding none, an enema was administered which succeeded in unloading the bowels and giving great relief. At this time the pulse was small and quick, and the skin hot and dry. He complained of great pain in the right iliac region, which was very tender when pressure was made upon it. Subsequently he became very restless and complained much of the heat; delirium set in, which however had completely gone off on the following morning, coincidently with relief to a great extent from the abdominal pain; at the same time there was great depression; the pulse was quick and small, and the skin cold and clammy. As the abdominal pain had not altogether subsided, turpentine stupes were applied to the part, and the calomel and opium continued. He was removed in the morning to the hospital, and expired at 9 p.m of the evening of the same day. This is a tolerably fair history of a case of typhlitis when it assumes a fatal form. The young gentleman was subject to constipation of the bowels, which on some occasions were not moved for six days. On the present occasion they had not been moved for several days.

A case of death from yellow fever appears in the returns from the Buzzard. The surgeon of that vessel entered the disease

* Assistant Surgeon O'Connor.

disease as remittent fever, but the symptoms unquestionably resembled those of specific yellow fever. The only circumstance that throws a doubt upon the case is the fact that it did not spread amongst the ship's company, and that other officers and men equally exposed did not contract it. The case occurred at the Island of Sacrificios, off Vera Cruz, in the person of the ship's steward, and the surgeon* says: "As the patient went on shore for the first and last time on the 18th, and was first seized on the afternoon of the 23rd, the period of incubation was only five days." . . . . . "The strange and unaccountable fact is, that although some of the officers and men were exposed to the same virus, and protected in the same way by quinine, they were neither infected nor was the disease developed on board amongst the ship's company, his being the only case during the ship's detention there, a period of nearly three months. Although I had been accustomed, on the West Coast of Africa, to the vagaries of this fell disorder, yet, in this case, I was astonished at the sudden supervention of black vomit, and death by exhaustion in so short a time, and preceded by such slight symptoms."

It is said that at this time yellow fever was prevailing on shore at Vera Cruz, and proving extremely fatal, not only to strangers, but to natives and acclimatised foreigners; but it is, to say the least of it, extraordinary that this being the case, the disease should not have been imported into some of the numerous vessels of war lying at Sacrificios. The surgeon of the Pylades, however, states that yellow fever did not affect any one on board that ship, and that no other vessels at Sacrificios had the disease. He says: "No kind of fever was contracted on shore, but whether this was due to the precautions taken, or to the less powerful nature of the poison, I cannot state, particularly as I believe that many officers of Her Majesty's ship Buzzard used to be often on shore, and escaped. However, as out of these men of the Buzzard given leave at the same place one contracted yellow fever and died in thirty-six hours, it may be considered evidence that the poison was strongly in force."

It is more than probable that this single case in the Buzzard was an example of that malignant form of remittent fever which is accompanied by yellowness of the skin and black vomit.

Intermittent

* Surgeon Rorie.

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Intermittent Fever.—A large number of cases of ague appear in the returns from the Jason. The majority of these occurred in the first quarter of the year, and followed upon general leave granted to the ship's company at Kingston, Jamaica. The surgeon* of the Jason says, "Leave was granted to the crew in January, for the first time since last May, and although no sickness prevailed on shore, and the Challenger's crew, who were on leave at the same time, suffered no ill consequences, yet some fifty attacks of fever of an intermittent type, followed their return on board. The majority were of short duration, and readily succumbed to the liberal use of quinine. During the cruize to Belize and the Bay Islands the tendency to fever gradually disappeared; and, since our return to Port Royal, leave has again been given, but this time not followed by even a single case of fever."

Eruptive Fevers.—A single case of scarlatina simplex appears in the returns from the Styx, but no information is given as to where and under what circumstances it was contracted.

Diseases of the Brain and Nervous System.—A fatal case of apoplexy, from excessive drinking of ardent spirits, occurred in a seaman of the Ariadne, while on leave. About 11 a.m. of the day he died, he had been seen to drink about a pint of undiluted spirits; and at 2 p.m. he was brought alongside the ship, dead.

A rather interesting case of paralysis, terminating fatally, occurred in the person of a marine of the Galatea; he was admitted into the Royal Naval Hospital at Bermuda, on the 28th November 1862, having been under treatment on board his own ship from the 29th of October, for syphilitic sarcocele. On admission he was suffering from severe headache, and pains in the shins at night, with soreness and erosion of the fauces, which symptoms were attributed to syphilitic cachexia. Under the treatment to which he was subjected the pains disappeared, and he regained flesh and strength; and ultimately, considering himself quite well, he was discharged to his ship. After being six days on board he applied to the surgeon, complaining of paralysis of the lower extremities, with retention of urine, which seemed to have become established in the course of the preceding night, after having felt numbness and tingling in his feet, with weakness increasing

* Surgeon H. Harkan.

increasing during a few days. On re-admission to hospital, the symptoms were attributed to an inflammatory affection of the spinal cord, and for this condition he was accordingly treated, being placed in a water-bed. The paralysis of the legs was progressive, and the retention of urine became accompanied by incontinence of fœces, and lastly, incontinence of urine set in. The lower part of the trunk lost its sensibility; a sense of constriction around the upper part of the abdomen distressed him; he suffered thirst, and took exceedingly little nutriment. The pulse was always rapid; deep sloughs quickly formed on the sacrum and other parts pressed upon, in spite of his lying on a water-bed. The mental faculties seemed unaffected; he was irritable and restless, but did not complain much of pain; more of want of rest. Latterly the irritability of manner became delirium of a drowsy character, and lapsed into coma before death. The mouth was fully ptyalized fourteen days before his death, without the slightest amelioration of the symptoms. The foregoing report is an abstract of that furnished by the Deputy Inspector General* of Bermuda Hospital, which concludes with the following account of the post-mortem examination of the cranium and vertebral column.

"General softness of tissues; a large slough on the sacrum, superficial ones on the trochanters, scrotum, and heels. *Cranium:* meninges congested. At the vertex on the right hemisphere, marked signs of meningeal inflammation, in softening of the tissues both of the brain and its investments, with deposit of pus on the surface of that organ. *Spinal Canal:* The centre of the disease in the canal corresponded with the second lumbar vertebra, the body of which was highly vascular; and at this point the exterior meninges of the cord, opposed to the posterior surface of the body of this bone had undergone removal by interstitial absorption, in such a manner that for three-quarters of an inch the visceral layer of the arachnoid was separated from the vertebral body merely by serous fluid, mixed with blood; the parietal layer of the arachnoid, the dura mater, and the posterior common vertebral ligament being absent. The meninges above and below this point were highly injected, and matted together by inflammatory action. The medulla spinalis itself was also somewhat injected from the sixth dorsal vertebra, to its termination in the cauda equina, and had undergone extensive softening, the result, apparently, of inflammation, excited by pressure of effused fluid, posterior to the body of the second lumbar vertebra."

Thirty-eight cases of delirium tremens were under treatment throughout the year. Of these, the subjects were, one quarter-

* Dr. W. R. E. Smart.

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quarter-deck officer, one warrant officer, eight petty officers, one leading seaman, twelve able seamen, thirteen marines, one stoker; and in one case there is no means of ascertaining to what class the patient belonged, the returns from the vessel being defective. The total number of cases of this disease is almost precisely the same as obtained during the preceding year, but the ratio per 1,000 of mean force is greatly in excess.

Diseases of the Organs of Respiration.—The ratios of cases of inflammatory disease of these organs, and of phthisis, exceed those of the preceding year, but there is a decided decrease in the other affections. The Cadmus seems to have had a good many cases of bronchitis, but they were not, apparently, of much severity, the average duration of each case on the sick list being only ten or eleven days.

There was a fatal case of œdema glottidis. The subject of it was a seaman of the Ariadne, who, after getting very wet, was placed on the sick list with sore throat, which, although not of a severe nature, necessitated his being sent to the hospital at Jamaica. On admission, it is stated that his case appeared to be one of ordinary tonsillitis, the breathing not being more affected than might have been looked for in such a case. There was no sign of much distress, and nothing at all like a sense of suffocation. No appearance of inflammation about the throat; the tonsils were not inordinately swollen, for though reaching to the uvula on either side, there was not much projection of them anteriorly. The uvula was of its natural size and appearance; the voice was hoarse, as in tonsillitis; there was some exterior swelling of the neck; no pain was complained of, and he asked for drink, which he swallowed with no more than the usual difficulty. When visited at 9 p.m., there was no urgent symptom; he was sleeping, woke readily, and expressed himself as relieved; the nurse slept close to him; and at 4 a.m. of the following morning he was found to be dead. On examination of the body, no sign of active inflammation could be found. There was an abscess in each tonsil of the size of about half a walnut, and there was infiltration of serum into the cellular tissue of the epiglottis, at the base sufficient to have caused suffocation. From the total absence of signs of inflammation, and from his appearance when last visited, at 9 p.m., the Deputy Inspector General concluded that the effusion had occurred suddenly.

Diseases of the Organs of Circulation.—A fatal case of angina pectoris occurred in the Nile. The patient, a seaman, suffered from dyspeptic symptoms, accompanied with a sense of weight and uneasiness at the epigastrium, with general languor, and at times a tendency to faintness; he also complained of shooting pains in the chest and arms, and occasionally of headache. On the morning of the day preceding his death he appeared to be improving steadily, but in the afternoon, after dinner, he was seized with violent pain in the chest and stretching down the arms, attended with faintness and a sense of suffocation; the face was pale and anxious. He had several of these attacks during the course of the afternoon, and in the early part of the night he complained of faintness and dyspnœa, with a continuance of the shooting pains in the chest and arms. During the night he suddenly started from his bed, and went to the skylight for air, he said, then suddenly asked for a bucket, and, while in the act of vomiting, died. The post-mortem appearances were not of a very decided character. The heart was enlarged, pale, and rather fatty; there was slight dilatation of the commencement of the ascending aorta, with roughening. The valves of the heart were competent. The lungs were somewhat emphysematous; with the exception of some amount of congestion, the abdominal organs were healthy. The mucous membrane of the stomach was especially congested.

There were two deaths from pericarditis, one occurring in the person of an officer of the Peterel, the other in a shipwright of the Orlando. In these instances, the pathological appearances revealed on dissection were of considerable interest.

In the case of the officer there was marked syphilitic cachexia. He had been frequently under treatment for ulcers of a syphilitic character, and he was said to suffer from chronic cystitis. Shortly before his last illness, he had been affected with rheumatism of the upper extremities, chiefly confined to the smaller joints. On the 9th of March symptoms of pericarditis set in, and on the 13th he was removed to Bermuda hospital. On admission there the physical signs were those of pericarditis with effusion, and endocarditis affecting the aortic valves. The disease ran rapidly to a fatal termination, death taking place on the morning of the 17th. The following report of the autopsy is by the Deputy Inspector General of the hospital: "*Pericardium* contained 16 oz.

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16 oz. of dark serum; its substance was thickened and highly vascular, and both surfaces completely covered with lymph in papillated ridges. *Aortic valves.*—One, unaltered, behind which arose the left coronary artery; one (2nd) thickened, and having small vascular verrucæ on its free margin; and the third, behind which arose the right coronary artery, quite disorganised, being thick, and having a large mulberry-like, livid exrescence on its free edge. The second and third were so much softened that a rent existed along the line of junction with the aortic wall. *Aortic walls.*—There were several spots of whitened fibrous tissue within the first inch of the aorta. Behind the valve that had undergone the greatest amount of disorganisation, the aortic walls had been affected by a kind of ulcerative absorption, so that two irregular holes, each large enough to admit a pea, perforated the serous and fibrous coats, the cellular coat covered by the pericardial reflection alone remaining; there was no coagulum in either small cavity. The space between these holes and the insertion of the sigmoid valve presented smaller livid excrescences, similar to those on the free edge of the valve. The *left pleura* had taken on slight inflammatory action by contiguity. Both kidneys were highly vascular, and contained in their calices a mixture of pus with urine.

These remarkable lesions were, I think, of a syphilitic character."

The subject of the other fatal attack of pericarditis, the shipwright of the Orlando, had been invalided for remittent fever on the 2nd of February and left at Bermuda hospital as a patient. His previous medical history was, "Illness in the West Indies from the 26th of December 1862, of rheumatism of the knee and other joints. Remittent fever, followed by diarrhœa, and pain in the right hypochondrium supervened on the 13th of January 1863." When admitted into hospital on the 2nd of February, he was much emaciated, and in a state of extreme prostration. There was pain in the right hypochondrium, increased by pressure. Diminished expansibility of the left side of the thorax. Pain and cough increased by lying on the right side. The pulse was 120, thready. There were profuse nocturnal sweats. The cardiac sounds were always muffled, and it was observed that he often slept in the sitting posture. Under the treatment to which he was subjected, he slowly improved, and was able to be moved into the open air. On the morning of the 1st of March

March he awoke and got out of bed, when he was seized with sudden faintness and dyspnœa, with a fluttering pulse, and many symptoms indicative of sudden inability of the heart to maintain the circulation, the cause revealed by the stethoscope being a pericardial effusion of serum. This condition continued with more or less prominence of various symptoms from that day, the functions of the kidney became almost suspended, he fell into a lethargic or semi-comatose state, and died on the morning of the 8th of March. On post mortem examination of the body, both parietal and visceral surfaces of the pericardium were found covered with a thick layer of roughened lymph that seemed to have undergone detachment by a subsequent effusion of straw-coloured serum. The mitral valves were thickened, and the cavities of the heart filled with dark coloured blood. Old pleuritic adhesions existed, the lungs were studded with miliary tubercles, and an apoplectic clot was found in the middle lobe of the right lung. The liver and kidneys were engorged with blood

Diseases of the Alimentary Canal.—There is a very considerable decrease in the ratio of cases of disease coming under this head as compared with the preceding year, and particularly with respect to dysentery, which, in 1862, presented an altogether exceptional ratio, consequent upon the epidemic form which the disease assumed in the Marine battalion in Mexico. During that year the ratio of cases of dysentery was 23·5 per 1,000 of mean force. In the present year it is only 6·5, which is about the average ratio of the station.

Dysentery and diarrhœa were very prevalent in the Immortalité, these diseases having on two separate occasions appeared in an epidemic form immediately subsequent to the vessel leaving Vera Cruz. The following report upon these epidemics is made by the surgeon* of the ship.

"In the end of January we went down to Vera Cruz, and anchored under the lee of Sacrificios, where we lay until the 7th of February, when we sailed again for Matamoras. Soon after leaving Vera Cruz, several cases of dysentery appeared, some of which were very acute, and one proved fatal. A number of cases of diarrhœa and mild fever very tractable also followed; but as February advanced, and while the ship remained in the northern part of the gulf, all traces of the malific agency disappeared, and the sick list fell

* Surgeon Wm. Loudon Gordon.

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fell to its average state. Again, however, on returning to Vera Cruz on the 1st of March, and from thence sailing on the 7th, enteric and febrile disorders set in with considerable force. There were a very few cases of a dysenteric tendency, but generally they assumed the character of a simple bilious diarrhœa with a febrile accompaniment, and the treatment combined quinine with castor oil, Dover's powder, and simple astringents. The sick list for some days ranged about seventy. After leaving Vera Cruz, the heat for a few days was intense and depressing, with a heavy atmosphere, overcharged with moisture, and highly conducive to such disorders as now appeared; and as the primary attack came on with almost choleraic suddenness and force, and the cases followed in rapid succession while radiating from a centre, as if spreading by communication, it was feared at first that a severe epidemic threatened us which might gain force as it advanced. We were then on our way direct eastward for Havana, but I recommended that our course should be steered to the northward, in hopes of a more bracing atmosphere, which was at once done, and soon we reached a drier and cooler latitude, after which the enteric disorders subsided, and before going into Havana had entirely disappeared. . . . On the 28th of April, we again anchored at Vera Cruz, where we lay till the 4th of May. While we lay in that harbour, or roadstead, the health of the men remained good; but, as in former visits to that place, as soon as we got to sea again, signs of a malarious influence on board were exhibited. Cases of diarrhœa, ephemera, and dysentery followed. The enteric disorders were always accompanied with a sharp fever, and, no doubt, were of a malarious origin, which was carefully kept in view in the treatment adopted. Each attack of diarrhœa was ushered in by a febrile accession, which, however, subsided on the first remission, leaving the diarrhœa simply to be treated. In several cases, however, true dysentery, in its most exhausting form, was developed, and one, after passing through the acute stage of a very severe attack, sunk into typhoid fever, from which he never recovered."

The total number of cases of dysentery in this ship was twenty-seven, and of diarrhœa one hundred and forty-five; the average duration of each case of diarrhœa on the sick list was five days and a half, while each case of dysentery was, on an average, eighteen days and a half under treatment.

There were three deaths from peritonitis in the squadron. In neither of them, however, were there any points of particular interest.

One mild case of English cholera, which readily yielded to treatment, appears in the returns of the Rosario.

Diseases of the Genito-Urinary Organs.—There is a considerable increase in the total ratio of cases of disease coming under

under this head, as compared with the previous year, particularly as respects syphilis and gonorrhœa, the increase of the former being as much as 12·2 per 1,000, and of the latter nearly 6·.

The vessels that suffered most severely from these affections were the Ariadne, Jason, Nile, Phaeton, Shannon, and Styx.

In the Ariadne the majority of the cases followed general leave at Port Royal, Jamaica, or Halifax. There were thirty-two cases of syphilis in this vessel.

There were twenty-three cases of syphilis, and seven of gonorrhœa in the Jason. Respecting these cases the surgeon says, "nearly all the disease of the present year was contracted at Jamaica, and mostly in the early part of the year. Kingston might then have competed with any town in the civilized world in the amount of disease it propagated, and some protection, as at Gibraltar and Malta, is urgently called for. There may be great difficulties in the way of introducing some sort of registration at home, but these would be very much more easily overcome in the colonies, especially in the West Indies, where soldiers and sailors are sought after for the money they put into circulation."

There were sixty-six cases of syphilis in the Nile, respecting which the surgeon,* writing from Halifax, says, "an unprecedentedly large number of cases of syphilis came under treatment during the year, larger than was shown in both annual returns together, for 1861 to 1862. It would scarcely have been much larger if we had been in England. During last summer there was a great increase of prostitution, and attendant disease, doubtless owing to the influx or importation of many prostitutes from the United States, it is understood, and apparently our men suffered in consequence. At the same time it should be borne in mind, by those who know the ways of men of war's men on leave, that a very few diseased women may infect a large number of men, especially belonging to the same ship.

The sixty-six attacks occurred to fifty-four persons, of whom forty-one had a single primary attack each; two were twice

* Dr. John Watt Reid.

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twice on the list with the same primary sore; three had two distinct primary attacks; seven had each a primary and a secondary attack, and one joined the ship with secondary disease."

There were twenty-six cases of syphilis and seven of gonorrhœa in the Phaeton. Most of the disease was contracted at Halifax, where also the cases in the Shannon and Styx where chiefly contracted.

Wounds and Injuries.—Three men were killed by falling from aloft, a man while drunk fell from the roof of a public-house and fatally fractured his skull, and another man sustained the same injury and was killed by falling from a cliff. In two instances fatal fracture of the skull was occasioned by blocks striking the head, and in one by the head being crushed between the ship's side and a boat which was being hoisted up. There were two deaths from compression of the brain by effused blood, the effusion taking place in both instances some hours after a fall on deck.

Ten seamen and two marines were drowned. Of these two fell overboard at sea; two fell out of boats and could not be recovered; five were drowned by the capsizing of boats; one was drowned in the attempt to ford a river, and a man was drowned, it is supposed, by lying down while drunk within high-water mark. One man committed suicide by jumping overboard.

In one instance the cause of death is not known. The man was a deserter, and died in a civil hospital at Havanna.

The total mortality of the year was 56; of these 34 deaths were from disease, and 22 from wounds and injuries of various kinds, the ratio of the former being 4·8, and of the latter 3·1 per 1,000 of mean force. The total ratio of mortality was only 7·9, which is a lower ratio even than obtained in 1859, when the rate of mortality was said to have been probably the lowest that ever occurred on the North American and West Indian Station. In that year it was 9·4.

Invalided.—Eight men were invalided for the sequelæ of fever; nine for diseases of the brain and nervous system, four of whom were insane; forty-eight for diseases of the organs of respiration, of whom forty-two laboured under pulmonary consumption; seventeen for diseases of the heart or blood vessels;

vessels; three for affections of the alimentary canal; five for inflammation of the liver; twenty-seven for diseases of the genito-urinary organs, of whom twenty-one were suffering from the effects of venereal disease; eleven for rheumatism; one for gout; three for diseases of the bones and joints; one for blindness; twelve for various affections of the skin or cellular tissue; fourteen for different forms of dyspepsia and debility; one for dropsy; one for cancer; ten for wounds and injuries, and fifteen for hernia; making a total of 186, or in the ratio of 26·3 per 1,000 of mean force, which is a decrease of 6· per 1,000 as compared with the preceding year.

TABLE, No. 1.

SHOWING the Number of CASES of all DISEASES and INJURIES, and the Number INVALIDED and DEAD, with the Ratio per 1,000 of Mean Force.

DISEASE OR INJURY.	Number of Cases.	Ratio per 1,000 of Mean Force.	Number Invalided.	Ratio per 1,000 of Mean Force.	Number Dead.	Ratio per 1,000 of Mean Force.
Continued and Remittent Fever	698	99·	7	·9	4	·5
Yellow Fever	9	1·2	-	-	5	·7
Intermittent Fever	153	21·7	1	·1	—	—
Scarlatina	1	·1	—	—	—	—
Apoplexy	6	·8	-	-	1	·1
Epilepsy	14	1·9	2	·2	—	—
Paralysis	8	1·1	1	·1	1	·1
Insanity	7	·9	4	·5	—	—
Delirium Tremens	38	5·3	-	-	1	·1
Neuralgia	31	4·3	2	·2	—	—
Inflammation of the Lungs and Pleura	121	17·1	6	·8	1	·1
Phthisis and Hæmoptysis	53	7·5	42	5·9	8	1·1
Influenza and Catarrh	978	138·7	—	—	—	—
Cynanche	238	33·7	—	—	—	—
Asthma	3	·4	—	—	—	—
Œdema Glottidis	-	-	-	-	1	·1
Functional and Organic Disease of the Heart	43	6·	14	1·9	4	·5
Hæmorrhoids	28	3·9	1	·1	—	—
Varix	8	1·1	2	·2	—	—
Phlebitis	1	·1	—	—	—	—
Inflammation of the Stomach and Bowels	12	1·7	1	·1	3	·4
Dysentery	46	6·5	2	·2	3	·4
Diarrhœa	934	132·4	—	—	—	—
Cholera	1	·1	—	—	—	—
Constipation and Colic	202	28·6	—	—	—	—
Inflammation of the Liver	21	2·9	5	·7	—	—
Jaundice	14	1·9	—	—	—	—

TABLE, No. 1.—Showing the Number of Cases of all Diseases, &c.—*continued.*

DISEASE OR INJURY.	Number of Cases.	Ratio per 1,000 of Mean Force.	Number Invalided.	Ratio per 1,000 of Mean Force.	Number Dead.	Ratio per 1,000 of Mean Force.
Inflammation of the Bladder and Kidneys	11	1·5	6	·8	—	—
Syphilis	342	48·5	12	1·7	—	—
Gonorrhœa	96	13·6	1	·1	—	—
Orchitis	132	18·7	—	—	—	—
Stricture	31	4·3	8	1·1	—	—
Incontinence of Urine, &c.	6	·8	—	—	—	—
Rheumatism	532	75·4	11	1·5	1	·1
Gout	8	1·1	1	·1	—	—
Disease of the Bones and Joints	44	6·2	3	·4	—	—
Ophthalmia	66	9·3	—	—	—	—
Amaurosis and Cataract	10	1·4	1	·1	—	—
Otitis and Deafness	38	5·3	—	—	—	—
Erysipelas	27	3·8	—	—	—	—
Scrofula	7	·9	3	·4	—	—
Bubo (*Symp.*)	127	18·	—	—	—	—
Phlegmon and Abscess	2,025	287·2	2	·2	1	·1
Ulcer	678	96·1	6	·8	—	—
Psora	31	4·3	—	—	—	—
Eruptions, &c.	201	28·5	1	·1	—	—
Dyspepsia and Debility	375	53·1	9	1·2	—	—
Scurvy	1	·1	—	—	—	—
Dropsy	14	1·9	1	·1	—	—
Worms	13	1·8	—	—	—	—
Headache, &c.	43	6·	5	·7	—	—
Cancer	1	·1	1	·1	—	—
Wounds and Injuries	2,014	285·6	10	1·4	10	1·4
Burns and Scalds	106	15·4	—	—	—	—
Hernia	20	2·8	15	2·1	—	—
Drowned	-	-	-	-	12	1·7
Poison	1	·1	—	—	—	—
TOTAL	10,668	1513·1	186	26·3	56	7·9

TABLE, No. 2.

SHOWING the Number of DAYS' SICKNESS from each DISEASE, and from INJURIES, the Average Number of Men Sick Daily, with the Ratio per 1,000 of Mean Force.

DISEASE OR INJURY.	Number of Days' Sickness on Board.	Number of Days' Sickness in Hospital.	Total Number of Days' Sickness.	Average Number of Men Sick Daily.	Ratio per 1,000 of Mean Force.
Continued and Remittent Fever	5,854	801	6,655	18·2	2·5
Yellow Fever	162	—	162	·4	—
Intermittent Fever	1,244	130	1,374	3·7	·5
Measles	33	—	33	—	—
Apoplexy	17	10	27	—	—
Epilepsy	166	101	267	·7	—
Paralysis	127	81	208	·5	—
Insanity	64	134	198	·5	—
Delirium Tremens	269	51	320	·8	·1
Neuralgia	174	47	221	·6	—
Inflammation of the Lungs and Pleura	2,155	518	2,673	7·3	1·
Phthisis and Hæmoptysis	1,379	698	2,077	5·6	·7
Influenza and Catarrh	5,295	98	5,393	14·7	2·
Cynanche	1,522	97	1,619	4·4	·6
Asthma	43	43	86	—	—
Functional and Organic Disease of the Heart	605	358	963	2·6	·3
Hæmorrhoids	239	111	350	·9	·1
Varix	158	53	211	·5	—
Phlebitis	24	—	24	—	—
Inflammation of the Stomach and Bowels	125	72	197	·5	—
Dysentery	861	79	940	2·5	·3
Diarrhœa	4,983	112	5,095	13·9	1·9
Cholera	7	—	7	—	—
Constipation and Colic	787	19	806	2·1	·2
Inflammation of the Liver	462	28	490	1·3	·1
Jaundice	187	—	187	·5	—
Splenitis	—	25	25	—	—

TABLE, No. 2.—Showing the Number of Days' Sickness from each Disease, &c.—*cont^d.*

DISEASE OR INJURY.	Number of Days' Sickness on Board.	Number of Days' Sickness in Hospital.	Total Number of Days' Sickness.	Average Number of Men Sick Daily.	Ratio per 1,000 of Mean Force.
Inflammation of the Bladder and Kidneys	302	23	325	·8	·1
Syphilis	7,398	3,328	10,726	29·3	4·1
Gonorrhœa	1,320	381	1,701	4·6	·6
Orchitis	1,707	345	2,052	5·6	·7
Stricture	542	395	937	2·1	·2
Incontinence of Urine, &c.	34	44	78	—	—
Rheumatism	6,037	1,275	7,312	20·	2·8
Gout	76	-	76	—	—
Disease of the Bones and Joints	848	225	1,073	2·9	·4
Ophthalmia	663	70	733	2·	·2
Amaurosis and Cataract	170	8	178	·4	—
Otitis and Deafness	291	-	291	·7	—
Erysipelas	365	80	445	1·2	·1
Scrofula	297	153	450	1·2	·1
Bubo (*Symp.*)	2,759	74	2,833	7·7	1·
Phlegmon and Abscess	15,409	594	16,003	43·8	6·2
Ulcer	10,697	920	11,617	31·8	4·5
Psora	373	-	373	1·	·1
Eruptions, &c.	2,454	349	2,803	7·6	1·
Dyspepsia and Debility	2,422	393	2,815	7·6	1·
Scurvy	18	-	18	—	—
Dropsy	206	5	211	·5	—
Worms	176	-	176	·4	—
Headache, &c.	247	-	247	·6	—
Cancer	1	77	78	—	—
Wounds and Injuries	19,352	1,540	20,892	57·2	8·1
Burns and Scalds	1,324	23	1,347	3·6	·5
Hernia	385	13	398	1·	—
Poison	10	-	10	—	—
TOTAL	102,825	13,981	116,806	320·	45·3

TABLE, No. 3. - - - - - - - -

SHOWING the Number INVALIDED from each Ship - - - -

CAUSE OF INVALIDING.	Aboukir.	Ariadne.	Barracouta.	Buzzard.	Cadmus.	Challenger.	Cygnet.	Desperate.	Galatea.	Greyhound.	Immortalité.	Jason.	Landrail.
Continued and Remittent Fever	1	–	1	–	–	–	–	–	–	–	–	1	–
Intermittent Fever	–	–	–	–	–	–	–	–	–	–	1	–	–
Paralysis	–	–	–	–	1	–	–	–	–	–	–	–	–
Insanity	1	–	1	–	–	–	–	–	–	–	–	–	–
Epilepsy	–	1	–	–	–	–	–	–	–	–	–	–	–
Vertigo	–	1	–	–	–	–	–	–	–	–	–	–	–
Chorea	–	–	–	–	–	–	–	–	1	–	–	–	–
Neuralgia	–	–	–	–	–	–	–	–	–	–	1	1	–
Inflammation of the Lungs and Pleura	–	–	–	–	–	–	–	–	1	–	1	–	–
Phthisis and Hæmoptysis	1	2	–	1	–	–	–	–	3	1	3	3	–
Disease of the Heart	–	–	–	–	–	–	–	–	–	–	2	2	–
Hæmorrhoids	–	–	–	–	–	1	–	–	–	–	–	–	–
Varix	–	–	–	–	–	–	–	–	1	–	–	–	–
Dysentery	–	–	–	–	1	–	–	–	–	–	–	–	–
Disease of the Bowels	–	–	–	–	–	–	–	–	–	–	–	–	–
Disease of the Liver	–	1	–	–	–	–	–	–	–	–	1	–	–
Albuminuria	–	–	–	–	–	–	–	–	–	–	–	–	–
Cystitis	–	–	–	–	–	–	–	–	–	–	–	–	–
Nephritis	–	–	–	–	–	–	–	–	–	–	–	–	–
Syphilis	2	–	–	–	–	–	–	–	1	–	1	1	–
Gonorrhœa	–	–	–	–	–	–	–	–	–	1	–	–	–
Stricture	–	–	–	–	–	2	–	–	–	–	–	1	–
Rheumatism	–	1	–	–	–	–	–	–	1	–	–	–	–
Gout	–	–	–	–	–	–	–	–	–	–	–	–	–
Disease of the Bones and Joints	–	–	–	–	–	–	–	–	–	–	–	–	–
Amaurosis	–	–	–	–	–	–	–	–	–	–	–	–	–
Scrofula	–	1	–	–	–	–	–	–	–	1	–	–	–
Abscess	–	–	–	–	–	–	–	–	–	–	1	–	–
Ulcer	–	2	–	–	1	–	–	–	1	–	1	–	–
Eruptions	–	–	–	–	–	–	–	–	–	–	–	–	–
Dyspepsia and Debility	–	–	1	–	–	–	1	–	–	–	1	–	–
Headache	–	–	–	–	–	–	–	–	–	–	–	–	–
Dropsy	–	–	–	–	–	–	–	–	–	–	–	–	–
Cancer	–	–	–	–	–	–	–	–	–	–	–	–	–
Wounds and Injuries	–	–	–	–	–	–	–	–	1	–	2	–	–
Hernia	–	–	–	–	–	–	–	1	–	–	–	–	1
TOTAL	5	9	3	1	3	3	1	1	10	3	15	9	1

- - - - - - - - Table, No. 3.

- - employed on the North American and West Indian Station.

Lily.	Medea.	Melpomene.	Nile.	Nimble.	Orlando.	Peterel.	Phaeton.	Pylades.	Rinaldo.	Rosario.	Shannon.	Spiteful.	Steady.	Styx.	Terror.	Vesuvius.	Virago.	Total.
–	–	–	–	–	–	1	–	–	1	1	–	1	–	–	–	–	–	7
–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	1
–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	1
–	–	–	–	–	–	–	–	1	–	–	–	–	1	–	–	–	–	4
–	–	–	–	–	–	–	–	–	–	–	1	–	–	–	–	–	–	2
–	–	–	–	–	–	–	–	2	–	–	–	–	–	–	–	–	–	3
–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	1
–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	2
–	1	–	1	–	–	–	–	1	1	–	–	–	–	–	–	–	–	6
–	–	–	7	1	1	3	3	4	1	2	2	–	–	2	2	–	–	42
–	–	–	–	–	–	2	3	–	–	1	2	–	–	–	–	2	–	14
–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	1
–	–	–	–	–	–	1	–	–	–	–	–	–	–	–	–	–	–	2
–	–	1	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	2
–	–	–	–	–	–	–	1	–	–	–	–	–	–	–	–	–	–	1
–	–	–	–	–	–	–	–	1	–	–	–	–	–	1	1	–	–	5
–	–	–	–	–	–	–	1	–	–	–	–	–	–	–	–	–	–	1
–	–	–	2	–	–	1	–	–	–	–	–	–	–	–	–	–	–	3
–	–	–	–	–	–	–	–	1	–	–	1	–	–	–	–	–	–	2
1	–	–	–	–	1	–	1	–	–	–	2	–	–	1	1	–	–	12
–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	1
–	1	–	3	–	–	–	1	–	–	–	–	–	–	–	–	–	–	8
–	–	–	1	–	1	1	1	–	1	1	–	–	–	–	1	2	–	11
–	–	–	–	–	–	–	1	–	–	–	–	–	–	–	–	–	–	1
–	–	–	–	–	–	1	–	–	–	–	–	–	–	–	2	–	–	3
–	–	–	–	–	–	1	–	–	–	–	–	–	–	–	–	–	–	1
–	–	1	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	3
–	–	–	–	–	–	–	–	–	1	–	–	–	–	–	–	–	–	2
–	–	–	1	–	–	–	–	–	–	–	–	–	–	–	–	–	–	6
–	–	–	–	–	–	–	–	–	–	–	1	–	–	–	–	–	–	1
1	1	–	–	–	–	1	3	–	–	–	–	–	–	–	–	–	–	9
–	–	1	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	1
–	–	–	–	–	–	–	–	1	–	–	–	–	–	–	–	–	–	1
–	–	–	–	–	–	–	1	–	–	–	–	–	–	–	–	–	–	1
2	–	–	1	–	2	–	–	1	–	–	–	–	–	1	–	–	–	10
–	–	2	–	–	–	2	1	1	2	–	2	–	–	–	2	–	1	15
4	3	5	16	1	5	14	17	13	7	5	11	1	1	5	9	4	1	186

TABLE, No. 4. - - - - - - - -

SHOWING the Number of DEATHS in each Ship - - -

CAUSE OF DEATH.	Aboukir.	Ariadne.	Barracouta.	Buzzard.	Challenger.	Galatea.	Immortalité.	Jason.	Lily.	Medea.	Melpomene.
Continued and Remittent Fever	–	–	–	–	–	1	–	1	–	–	–
Yellow Fever	–	–	1	1	–	–	–	–	–	–	–
Apoplexy	–	1	–	–	–	–	–	–	–	–	–
Paralysis	–	–	–	–	–	1	–	–	–	–	–
Delirium Tremens	–	–	–	–	–	–	–	–	1	–	–
Pneumonia	–	–	–	–	–	–	–	–	–	–	–
Phthisis and Hæmoptysis	1	1	1	–	–	–	1	–	1	1	–
Œdema Glottidis	–	1	–	–	–	–	–	–	–	–	–
Disease of the Heart	–	–	–	–	–	–	–	–	–	–	1
Angina Pectoris	–	–	–	–	–	–	–	–	–	–	–
Inflammation of the Bowels	–	–	–	–	1	–	–	–	–	–	–
Dysentery	–	–	–	–	–	–	2	–	–	–	–
Rheumatic Pericarditis	–	–	–	–	–	–	–	–	–	–	–
Psoas Abscess	–	–	–	–	–	–	–	–	–	–	–
Wounds and Injuries	–	–	–	–	–	1	3	–	–	–	1
Drowned	–	–	–	–	–	1	–	–	–	–	–
Not stated	–	–	–	–	–	–	–	–	–	–	–
TOTAL	1	3	2	1	1	4	6	1	2	1	2

- - - - - - - - - Table, No. 4.

- - employed on the North American and West Indian Station.

Nile.	Nimble.	Orlando.	Peterel.	Phaeton.	Plover.	Rinaldo.	Rosario.	Shannon.	Steady.	Styx.	Vesuvius.	Virago.	Total.
–	–	–	–	–	–	–	1	–	–	1	–	–	4
–	–	–	–	2	–	–	–	1	–	–	–	–	5
–	–	–	–	–	–	–	–	–	–	–	–	–	1
–	–	–	–	–	–	–	–	–	–	–	–	–	1
–	–	–	–	–	–	–	–	–	–	–	–	–	1
–	–	–	–	–	–	–	–	–	–	–	1	–	1
1	1	–	–	–	–	–	–	–	–	–	–	–	8
–	–	–	–	–	–	–	–	–	–	–	–	–	1
–	–	1	1	–	–	–	–	–	–	–	–	–	3
1	–	–	–	–	–	–	–	–	–	–	–	–	1
1	–	–	–	–	–	1	–	–	–	–	–	–	3
–	–	–	–	–	–	–	–	–	–	1	–	–	3
–	–	–	–	–	–	–	1	–	–	–	–	–	1
–	–	–	–	–	–	–	–	–	–	–	–	1	1
1	–	1	–	3	–	–	–	–	–	–	–	–	10
1	–	–	1	–	–	1	–	2	4	1	1	–	12
–	–	–	–	–	1	–	–	–	–	–	–	–	–
5	1	2	2	5	1	2	2	3	4	3	2	1	56

TABLE, No. 5. - - - - - - - -

SHOWING the Names of the SHIPS; the Average Complement and the Mean Force; Number of Men Daily

C. Commissioned. P. O. Paid off.

Rate.	NAME OF SHIP.	Where Commissioned.	When Commissioned.	Number of Guns.	Tonnage.	Horse Power.
Second Rate -	Nile - - - -	Devonport -	3 Jan. 1860	78	2,622	S. 500
Fourth Rates -	Orlando - - C. S.	Devonport -	17 Dec. 1861	46	3,740	S.1,000
	Immortalité - - -	Portsmouth	17 Nov. 1860	35	3,059	S. 600
	Melpomene - P. O.	Portsmouth	2 June 1859	35	2,860	S. 600
	Phaeton - - -	Sheerness -	1 Nov. 1861	39	2,396	S. 400
	Shannon - C. S.	Portsmouth	17 Jan. 1862	35	2,667	S. 600
	Galatea - - - -	Devonport -	16 May 1862	26	3,227	S. 800
	Ariadne - - -	Chatham -	22 Nov. 1859	26	3,214	S. 800
Sixth Rates -	Challenger - - -	Sheerness -	6 May 1861	22	1,462	S. 400
	Cadmus - - P. O.	Chatham -	11 May 1859	21	1,466	S. 400
	Jason - - - -	Devonport -	20 Nov. 1860	21	1,711	S. 400
	Pylades - - - -	Chatham -	4 Dec. 1862	21	1,278	S. 350
Sloops - -	Vesuvius - - -	Woolwich -	14 May 1862	6	970	P. 280
	Desperate - P. O.	Devonport -	22 Oct. 1860	8	1,038	S. 400
	Rinaldo - - - -	Portsmouth	3 May 1861	17	951	S. 200
	Greyhound - - -	Devonport -	9 Oct. 1861	17	880	S. 200
	Barracouta - - -	Sheerness -	1 June 1860	6	1,053	P. 300
	Spiteful - - P. O.	Woolwich -	31 Aug. 1860	6	1,054	P. 280
	Buzzard - - C.	Devonport -	27 Jan. 1863	6	980	P. 300
	Styx - - - -	Devonport -	3 Mar. 1862	6	1,057	P. 280
	Medea - - - -	Portsmouth	17 Sept. 1861	6	835	P. 350
	Virago - - C. S.	Sheerness -	29 July 1861	6	1,059	P. 300
	Peterel - - - -	Devonport -	23 Feb. 1862	11	669	S. 150
	Rosario - - - -	Sheerness -	23 June 1862	11	673	S. 150
Gun Vessels -	Lily - - - -	Sheerness -	11 Nov. 1862	4	702	S. 200
	Landrail - - -	Woolwich -	5 Sept. 1860	5	425	S. 80
	Cygnet - - - -	Portsmouth	23 May 1861	5	428	S. 80
	Steady - - - -	Devonport -	21 May 1861	5	431	S. 80
	Plover - - - D.	Chatham -	14 Aug. 1861	5	428	S. 80
	Nimble - - - -	Devonport -	18 Feb. 1861	5	428	S. 80
Receiving Ship -	Aboukir - - - -	Jamaica -	26 Aug. 1862	86	3,091	S. 400
Floating Battery -	Terror - - - -	Sheerness -	13 May 1857	16	1,971	S. 200

- - - - - - - - TABLE, No. 5.

the Number of Cases; the Number of Days' Sickness on Board; and the Average Sick in each Ship.

C. S. Station changed. D. Returns defective.

Period.	Average Complement.	Average Complement corrected for Time.	Number of Cases.	Number of Days' Sickness on Board.	Average Number of Men Daily Sick.	Ratio per 1,000 of Mean Force of each Ship.	Number discharged to Hospital.
Year - - -	820	820	927	11,276	30·8	37·5	13
1 Jan. to 31 Mar.	590	145	135	1,991	5·4	37·2	3
Year - - -	500	500	916	8,752	23·9	47·8	19
1 Jan. to 7 Mar.	490	80	105	927	2·5	31·2	1
Year - - -	450	450	812	7,345	20·1	44·6	32
1 July to 31 Dec.	500	250	441	4,906	13·4	53·6	21
Year - - -	510	510	803	8,275	22·6	44·3	9
Year - - -	470	470	639	7,125	19·5	41·4	32
Year - - -	280	280	274	3,026	8·2	29·2	8
1 Jan. to 6 May	260	85	184	1,571	4·3	50·5	4
Year - - -	250	250	430	4,365	11·9	47·6	49
Year - - -	280	280	703	6,434	17·6	62·8	23
Year - - -	170	170	117	1,761	4·8	28·2	8
1 Jan. to 7 Nov.	195	160	252	2,049	5·6	35·	10
Year - - -	170	170	307	3,713	10·1	59·4	8
Year - - -	175	175	441	3,615	9·9	51·	37
Year - - -	170	170	235	2,168	5·9	34·7	11
1 Jan. to 14 Mar.	150	25	38	300	·8	32·	–
1 Apr. to 31 Dec.	170	125	228	2,730	7·4	59·1	5
Year - - -	160	160	339	3,151	8·6	53·7	20
Year - - -	130	130	265	1,518	4·1	31·5	7
1 Oct. to 31 Dec.	160	40	82	1,299	3·5	87·5	6
Year - - -	130	130	311	2,948	8·	61·5	19
Year - - -	120	120	404	3,174	8·6	71·6	7
Year - - -	90	90	188	2,624	7·1	78·8	16
Year - - -	65	65	83	905	2·4	36·9	10
Year - - -	70	70	113	811	2·2	31·4	8
Year - - -	65	65	93	860	2·3	35·3	5
Seven months -	70	40	105	583	1·5	37·5	9
Year - - -	65	65	70	732	2·	30·7	4
Year - - -	670	670	153	859	2·3	3·4	25
Year - - -	290	290	475	2,496	6·8	23·4	75

Table, No. 6. - - - - - - - -

Showing the Number of Cases of all Diseases and Injuries in - - - -

DISEASE OR INJURY.	Aboukir.	Ariadne.	Barracouta.	Buzzard.	Cadmus.	Challenger.	Cygnet.	Desperate.	Galatea.	Greyhound.	Immortalité.	Jason.	Landrail.	Lily.
Continued and Remittent Fever	1	27	41	4	-	9	6	-	53	5	94	51	4	7
Yellow Fever	-	-	6	-	-	-	-	-	-	-	-	-	-	-
Intermittent Fever	2	4	1	1	-	4	-	-	2	-	7	67	5	5
Scarlatina	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Apoplexy	-	*a* 4	-	-	-	-	-	-	-	-	-	-	*a* 1	-
Epilepsy	-	2	-	-	-	1	-	-	2	-	1	-	-	-
Insanity	1	-	1	-	-	-	-	-	-	-	-	-	-	-
Delirium Tremens	1	2	-	-	6	1	-	1	2	1	10	-	-	4
Paralysis	1	-	-	-	-	-	-	1	-	1	-	-	-	-
Neuralgia	-	2	-	4	1	-	-	-	6	1	5	-	2	-
Inflammation of the Lungs and Pleura	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Phthisis and Hæmoptysis	1	4	-	*b* 6	12	-	2	4	6	9	6	3	-	6
Catarrh	2	5	-	1	-	-	-	3	8	1	2	-	1	1
Cynanche	33	71	3	17	43	19	12	50	50	14	102	25	6	18
Asthma	1	31	2	*c* 1	4	5	1	6	19	16	38	2	2	-
Functional and Organic Disease of the Heart	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Hæmorrhoids	-	1	-	-	-	-	-	-	1	-	3	2	-	1
Varix	-	1	-	-	-	2	5	2	1	2	-	3	-	4
Phlebitis	-	1	-	-	-	-	-	-	1	-	1	-	-	-
Inflammation of the Stomach and Bowels	2	-	1	-	-	1	-	-	-	-	1	-	1	-
Dysentery	-	4	1	4	1	-	-	-	3	-	27	-	-	1
Diarrhœa	12	32	24	21	13	34	9	23	19	38	145	31	2	10
Cholera	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Constipation and Colic	2	9	-	4	2	7	6	1	12	4	7	14	2	14
Inflammation of the Liver	-	3	-	-	1	-	-	-	1	-	5	3	-	-
Jaundice	-	-	-	2	-	1	-	1	4	-	-	1	-	-
Inflammation of the Kidneys and Bladder	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Syphilis	-	-	-	-	-	-	-	-	1	1	1	-	-	1
Gonorrhœa	10	32	5	15	5	14	4	3	13	14	10	23	1	7
Orchitis	-	-	4	1	3	3	3	10	-	14	4	7	3	3
Stricture	6	12	3	1	2	3	2	1	9	2	6	7	-	4
Incontinence of Urine, &c.	-	3	-	-	1	3	-	-	*e* 6	1	-	2	-	1
Rheumatism	-	-	-	-	-	3	-	-	1	-	-	-	-	-
Gout	16	37	23	4	13	35	7	8	11	37	40	14	1	10
Disease of the Bones and Joints	-	2	-	2	-	1	-	-	-	-	-	-	-	-
Inflammation of the Eyes	2	1	-	-	-	1	-	-	9	2	2	3	-	-
Amaurosis and Cataract	-	2	1	-	-	-	2	2	8	1	13	-	1	1
Otitis and Deafness	-	*f* 1	-	-	1	-	-	-	-	-	1	-	-	-
Erysipelas	-	1	-	1	-	-	2	2	6	8	2	1	-	-
Scrofula	-	3	-	1	-	1	-	-	3	3	1	2	2	-
Bubo (*Symp.*)	-	2	-	-	-	-	-	-	1	1	-	-	-	-
Phlegmon and Abscess	2	4	2	-	-	6	3	4	14	11	8	9	5	-
Ulcer	11	127	28	45	27	25	15	22	189	*h* 81	173	66	18	28
Psora	11	47	17	25	3	29	3	10	79	39	35	4	3	14
Eruptions, &c.	-	-	-	-	1	-	-	-	7	5	-	-	1	-
Dyspepsia and Debility	-	4	-	32	1	3	1	25	42	6	11	2	-	4
Headache, &c.	11	12	6	8	6	12	7	5	16	27	22	8	6	8
Cancer	-	7	3	-	3	3	4	-	2	-	2	-	-	3
Dropsy	-	-	-	-	-	1	-	-	-	-	-	-	-	-
Worms	-	-	-	-	-	-	*m* 1	-	-	-	-	-	-	-
Wounds and Injuries	-	-	-	-	1	*p* 1	-	-	*q* 1	*p* 2	-	-	-	-
Burns and Scalds	22	131	34	25	34	43	15	62	185	91	127	76	12	29
Hernia	-	7	-	1	-	3	3	5	8	3	4	4	3	4
Poison	-	-	-	-	-	-	-	1	2	-	-	-	1	-
Scurvy	-	1	-	-	-	-	-	-	-	-	-	-	-	-
Total	153	639	235	228	184	274	113	252	803	441	916	430	83	188

a Coup de soleil. *b* 2 Laryngitis. *c* Mumps. *d* Albuminuria. *e* 5 Dysuria.
m Œdema. *n* 3 ditto. *o* Hydrocele.

- - - - - - - - - TABLE, No. 6.

- - - - each Ship on the NORTH AMERICAN and WEST INDIAN Station.

Medea.	Melpomene.	Nile.	Nimble.	Orlando.	Peterel.	Phaeton.	Plover.	Pylades.	Rinaldo.	Rosario.	Shannon.	Spiteful.	Steady.	Styx.	Terror.	Vesuvius.	Virago.	TOTAL.
1	1	7	5	2	40	94	1	25	16	76	3	3	11	9	97	-	5	698
5	-	1	-	5	2	13	-	6	2	2	1	-	-	17	1	1	-	153
-	-	-	-	-	-	-	-	-	-	a 1	-	-	-	1	-	-	-	1
-	-	3	-	-	-	-	-	1	1	1	2	-	-	-	-	-	-	6
-	-	-	-	-	-	-	-	1	-	-	1	-	2	-	1	-	-	14
-	1	3	1	-	-	2	-	1	-	-	-	-	-	1	-	-	1	7
2	-	2	1	-	-	1	-	-	-	-	1	-	-	1	2	-	-	38
-	-	-	1	-	1	2	1	-	-	-	-	-	-	1	2	-	-	8
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	31
2	1	13	1	1	1	9	-	11	1	5	-	-	-	3	9	4	1	121
-	-	8	-	-	2	6	-	3	-	4	2	-	-	2	2	-	-	53
51	23	63	5	20	23	52	22	36	46	33	31	2	5	12	41	13	7	978
3	1	22	2	3	11	28	-	10	2	7	6	1	1	4	5	3	1	238
-	-	-	-	-	-	-	-	-	-	-	-	-	1	2	-	-	-	3
2	-	3	1	1	4	3	2	4	-	2	2	-	-	1	11	2	-	43
-	-	1	-	-	-	3	-	-	-	1	-	-	-	-	1	-	-	28
-	-	-	-	-	2	-	-	-	3	-	1	-	-	-	-	-	-	8
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1
-	-	1	-	-	-	1	1	1	-	-	-	-	-	3	1	-	-	12
-	1	-	-	-	2	1	-	-	-	-	-	-	-	-	1	-	-	46
42	6	41	10	7	16	117	12	48	15	37	58	1	9	52	44	3	3	934
-	-	-	-	-	-	-	-	-	-	1	-	-	-	-	-	-	-	1
12	1	7	1	2	2	19	2	23	4	24	-	-	-	11	10	-	-	202
1	-	1	-	-	-	-	-	3	-	-	-	-	1	2	1	-	1	21
-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	1	2	-	14
-	-	4	-	-	-	d 1	-	-	1	-	-	-	-	-	1	-	-	11
2	1	66	1	1	2	26	4	4	14	1	21	3	3	22	8	8	-	342
2	1	-	1	-	3	7	1	1	6	2	1	1	4	5	6	-	-	96
3	2	19	1	1	7	7	3	11	2	-	10	-	1	2	1	1	2	132
1	-	1	-	-	-	5	-	2	2	-	-	-	-	-	1	1	1	31
-	-	-	-	-	-	-	-	1	-	-	-	-	-	-	1	-	-	6
13	1	49	1	9	10	38	9	51	10	10	8	5	2	20	25	11	4	532
-	-	-	1	-	-	-	-	-	-	-	-	-	-	-	-	2	-	8
1	-	2	-	-	1	7	1	1	2	1	-	-	-	6	2	-	-	44
2	-	1	-	5	7	3	-	8	-	-	1	2	2	1	2	2	-	66
-	-	-	-	-	g 2	-	-	f 4	-	-	-	-	-	-	-	-	-	10
-	-	1	-	-	-	5	2	1	-	1	-	-	-	5	1	-	-	38
-	-	-	-	4	-	1	2	-	-	-	1	-	-	1	-	1	-	27
-	-	1	-	2	-	-	-	-	-	-	-	-	-	1	-	-	-	7
-	-	6	3	1	2	11	3	7	5	4	5	2	2	2	5	1	-	127
27	14	202	i 11	15	90	i 110	15	i 196	k 78	97	141	8	20	31	i 68	27	20	2,025
6	8	65	5	19	9	37	4	41	23	37	48	2	4	22	24	5	-	678
-	4	-	-	2	1	2	-	-	-	-	-	-	-	-	6	-	2	31
1	-	10	7	1	2	7	-	15	-	l 3	3	2	1	5	12	-	1	201
35	3	44	2	-	9	49	6	17	1	3	10	1	2	17	13	3	3	375
3	-	-	1	1	-	-	-	3	-	1	-	1	2	3	-	-	1	43
-	m 1	o 2	-	-	-	-	-	m 4	-	-	-	-	n 4	m 2	-	-	-	1
1	p 1	-	-	-	p 1	-	-	2	-	-	p 1	-	-	p 2	-	-	-	14
43	31	264	11	31	52	134	13	152	69	48	76	4	15	65	68	25	27	13
4	3	14	1	-	5	5	1	8	2	-	4	-	1	6	2	2	1	2,014
-	-	1	-	1	2	3	-	1	2	-	3	-	-	-	2	-	1	106
-	-	-	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-	20
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1
265	105	927	70	135	311	812	105	703	307	404	441	38	93	339	475	117	82	1
																		10,668

f Hemeralopia. *g* 1 Nyctalopia. *h* 3 Anthrax. *i* 1 ditto. *k* 2 ditto. *l* 2 Varicella.
p Tænia solium. *q* Tænia lata.

SOUTH EAST COAST OF AMERICA.

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The squadron on this station in 1863 comprised eleven vessels; two of which were frigates, one of the fourth, the other of the sixth rate; there were four sloops, one steam vessel, two gun-boats, and two receiving ships stationary at Rio de Janeiro; one of which, however, was relieved by the other. The mean force corrected for time was 1,370. The total number of cases of disease and injury under treatment was 2,096, of which thirty-six were invalided, and twenty died; the ratio of cases being 1456·9; of invaliding 26·2, and of mortality, 14·5 per 1,000 of mean force, which under each head is a considerable decrease as compared with the previous year.

The daily sick-rate from fevers was 4·8 per 1,000; from diseases of the organs of respiration, 2·7; from diseases of the digestive organs, 4·2; from venereal diseases, 6·; from rheumatism, 2·7; from affections of the skin and cellular tissue, 18·8, 8·1 being from boils and abscesses, and 7·8 from ulcers; from dyspepsia and debility, 2·3; and from wounds and injuries of various kinds, 10·2. The daily number sick from all causes was in the ratio of 56·7 per 1,000.

Fevers.—One hundred and twenty-eight cases of primary fever were under treatment during the year. Of these, one was invalided, and two terminated fatally.

A single case of fever of a continued type appears in the returns from the Alecto. The man was discharged to the receiving ship at Rio, which is employed as a hospital, after being eight days under treatment in his own ship. The case was mild.

In the Ardent there were five cases of primary fever. They appear to have been of considerable severity, each case being on an average eighteen days under treatment on board ship

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ship. One case was complicated with pneumonia, another with bronchitis, and a third with enteric symptoms. They were all contracted in the River Plate, and two of them were sent for treatment to the British Hospital at Monte Video.

None of the cases of primary fever in the Curlew, Doterel, and Egmont were of any importance.

There were eighty-five cases of primary fever in the Forte. The majority of these occurred during the prevalence of an extensive epidemic of small-pox with which the ship was visited in the Christmas quarter of the year, and appear to have been connected with that exanthem. These cases will therefore be noticed elsewhere. With reference to the other cases but little information can be obtained from the records of the ship, further than that they were of a low type. Their average duration on the sick-list was about sixteen days. One of them proved fatal. In this instance, the fever was of the remittent type, with much implication of the nervous system, bilious vomiting, diarrhœa, and prostration.

Six cases of primary fever appear in the returns from the Satellite. They were chiefly of a mild remittent type, and occurred in the harbour of Rio de Janeiro in the Midsummer quarter. The surgeon,* remarking on these cases, says that they "all occurred in the persons of boys or ordinary seamen recently from England, and may be fairly attributed to change of climate, with a residence of more than a month in Rio Harbour. The position taken up by a ship when coming to anchor in this harbour greatly influences the appearance of fever, even of a mild type. When I was surgeon of Her Majesty's ship Curlew, the only cases of fever which I had were contracted when the ship was anchored under the lee of Villagagnon Fort and Island, which interrupts the sea breeze. I also observed that Her Majesty's ship Stromboli used to anchor in the same position, and she got some cases of fever. It was here this ship had anchored when these cases of fever were contracted. It is not alone that the sea breeze is partially interrupted by this island, but the ebbing tide, which sweeps the sewage of the city from off the whole shore-line, flows directly to this spot before joining the main stream. It is foul with every form of floating

* Surgeon Robert Creighton.

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floating filth and noisome exhalation. All ships should be made to anchor out in the open fairway, where the cool sea breeze comes along in its full force, and the sweeping tide in its strength carries away the harbour water without delay."

There were eleven cases of primary fever in the Stromboli, one of which proved fatal, and several were of a somewhat severe character. The fatal case occurred in the person of an officer, whose constitution, from intemperate habits, was quite undermined. He had gone to sleep on the deck of the engine-room, exposed to a current of cold air, and on the following morning was attacked by the disease which carried him off. Great irritability of stomach, with constant vomiting, were the most prominent symptoms, and ultimately delirium of a somewhat violent character. The type of fever appears to have been almost altogether obscured by the anomalous characters imparted to the symptoms by the patient's cachectic habit of body; but in some of its features the case was not unlike one of delirium tremens.

There were six cases of primary fever in the Triton, all of a mild character, and chiefly dependent upon dietetic errors.

Eruptive Fevers.—Thirty-eight cases of small-pox and twenty-two of varicella appeared in the squadron. Of these, twenty-nine of the cases of small-pox and all the varicella occurred in one vessel.

There was a single case of small-pox in the Curlew. It occurred in the person of a petty officer, who bore an imperfect vaccine cicatrix on his arm, and who also stated that he had had small-pox when a boy. From the symptoms with which he presented himself, it was believed that the case would prove one of eruptive fever, and he was for that reason forthwith discharged to the English hospital at Monte Video, where the disease became developed in a modified form, running its stages quickly. It was supposed to have been contracted at Monte Video, where the disease was very prevalent; but it is more probable that it was communicated by a petty officer of the Forte, who had been lent to the Curlew, but who was sent back to his own ship at this time, labouring under febrile symptoms which proved to be premonitory of variola.

There

There were two cases of small-pox in the Egmont, both occurring in the persons of medical officers. The surgeon* of the Egmont makes the following observations with reference to these cases :—

"Both these officers contracted the disease in the discharge of their duty in visiting small-pox patients left in the civil hospital by Her Majesty's ship Forte on her leaving this port (Rio de Janeiro) for Monte Video. An assistant surgeon of the Forte performed this duty at first, visiting the patients every third day, and remaining but a few minutes each time in the ward. He sickened for the small-pox ten days after he paid his first visit, and was removed to sick quarters on shore immediately after the eruption appeared. When he was placed on the sick list, the duty of visiting the small-pox patients in hospital devolved on the assistant surgeon of this ship. He only visited the hospital twice, remaining but a short time on each occasion, and was seized with the premonitory fever thirteen days after he paid his first visit. He also was removed to sick quarters on shore immediately on the appearance of the eruption, and no other case of the disease appeared among the ship's company. Both these patients, who bore well-pitted cicatrices of vaccination, made speedy recoveries. Small-pox was at the time prevalent on shore, where the inhabitants take but little heed of it; but there appears little reason to doubt that these two cases were the result of exposure to infection in the Misericordia Hospital, where the Forte's cases were treated."

The assistant surgeon of the Egmont† states that the following was the method of treatment adopted in his case by the Brazilian medical officer, who treated him during his illness. On the first day fifteen minims of tincture of aconite were administered to him in hot tea, and he was covered with blankets, so as to induce copious perspiration. On the second day he had a powerful emetic, composed of ipecacuana and mustard; and on the third day he was given two drachm doses of bitartrate of potass in flax-seed tea. This was continued for three days, at the end of which time he began to improve, but was much debilitated. Ten days from the date of his entering the sick quarters he was discharged cured, but very weak.

In the Forte there were twenty-nine cases of variola, and twenty-two of varicella. Besides these, and occurring at the same time with them, were fifty cases of fever of a continued type, the great majority of which assumed all the characters of the eruptive fever, some of them being severe, and not followed by vesicles or pustules, while others were mild and followed

* Dr. G. J. Willes. † Assistant Surgeon O'Toole.

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followed by abundant crops of both. The following is the history of this epidemic as detailed by the surgeon* of the ship:—

"Early in September an eruptive fever made its appearance on board. A seaman was placed on the sick list for true syphilitic chancre, contracted on shore about the 6th of August while on leave, for which he was treated with mercury, but not to the extent of affecting the mouth. On the 7th of September following (he was put on the list for chancre on the 11th of August), when the chancre was nearly healed, he was attacked by mild fever, which was followed on the second day by an abundant eruption of vesicles between the shoulders, and subsequently, but not so profusely, on the face, body, and limbs. The febrile symptoms abated on the appearance of the eruption, and the eruption itself disappeared in eight or ten days, leaving the man in perfect health.

"There was nothing whatever of a syphilitic character in this eruption. How this case originated cannot be traced. The man had not been out of the sick bay from the 11th of August, to the day of his attack. No similar case had occurred on board, nor had the other ships in harbour anything like it. Sore throat and eruptive diseases existed on shore at the time; the latter seldom disappear. The boats' crews had, of course, constant communication with the shore, and the ship's company had been on leave from the 1st of August to the 7th, some stragglers to the 20th.

"On the 11th of September, a seaman who was put on the list on the 7th for catarrh was attacked by mild febrile symptoms, followed on the second day by an abundant crop of vesicles, with relief to the fever. This case followed the same course as the preceding one, and was discharged on the 12th of October. This man had no communication with the other.

"On the 13th of September, the blacksmith, who had been lent some days previously to the Curlew, returned on board labouring under fever. On the second day of the fever a vesicular eruption appeared. The case was similar to those already detailed. He was discharged to duty on the 10th of October.

"The next case that occurred was variola: this was the first appearance of pustular disease on board. It occurred on the 14th of September. Between that date and the 5th of November, when the last case appeared, twenty-nine cases of varioloid occurred. Some were very severe and confluent, some moderate, and some mild. Most of the cases occurred at sea; those which occurred in the harbour of Rio de Janeiro were sent to the Civil Hospital as soon as possible.

"Some of the cases were true variola, some varioloid, some varicella, and others intermediate between the two last-named affections; that is, vesicles containing a puriform fluid, and pustules which did not exhibit the true characters of varioloid. The former were mere bladders formed by the cuticle; the latter, pustules without

* Surgeon J. J. Crawford.

out depressed centres, areolæ, or surrounding hardness, leaving no cicatrices, and accompanied by moderate fever. In some there were only three or four pustules. In two cases the men came with a scattered eruption on the face and arms, without preceding fever. On admission the patients all complained of weakness, and pain in the back and limbs, and giddiness. Some had had slight rigors, the majority none. Some cases began in faintings, some with catarrh, some few with diarrhœa. Three or four commenced with nausea, and only two with vomiting. There was epigastric pain on pressure in one case only. The men almost always went to bed the night before in good health, and towards morning became languid and stiff, as if they had been fatigued. The tongue was usually pale, flabby, and tremulous, sometimes quite clean; the pulse accelerated. There was a peculiar dull, dusky appearance about the eyes and countenance; drowsiness in all cases, sometimes approaching coma. This state was soon followed by fever, which varied from the mildest form of continued to the most violent inflammatory, with intense pain in the back and limbs, delirium, and coma. The most distressing symptoms were headache, pains in the back extending down the spine, and in the limbs and joints. The fever and pains were relieved by the appearance of the eruption.

"The complications were—1st. Sore throat, in many cases; not serious, except in the case of a boy who died in hospital at Rio; the eruption extended into the throat causing difficulty of respiration and deglutition. 2nd. Bronchitis, in one case. 3rd. Catarrhal symptoms in several. 4th. Diarrhœa, in three or four cases. 5th. Epistaxis in one. 6th. Small abscesses in various parts of the body. 7th. Colicky pains and flatulence. 8th. Salivation, in two cases. 9th. Swelling of the hands and feet, in one or two cases.

"When the eruptive disease first appeared, a screen was established on the after part of the main deck, into which all cases were put immediately on the appearance of the eruption. No communication was permitted with those inside the screen, excepting by the medical officers and attendants. Strict attention was every where paid to cleanliness, ventilation and dryness of the decks, whitewash and solution of the chloride of zinc being freely used every where. The bedding and clothes belonging to the worst cases were thrown overboard; the linen, &c., frequently washed in boiling water, and the patients' clothes often changed. A second screen on the opposite side of the main deck was put up for convalescents, where they were kept until fit for duty. Inside this screen the bedding and clothes were fresh. The sick bay was kept for fever and ordinary cases; in fact, every precaution was used to prevent the spread of the disease. No communication was allowed with the other men-of-war in harbour.

"None of the medical officers, sick berth attendants, or nurses, were attacked by the eruptive disease.

"On the first appearance of disease at Monte Video, the weather was cool and damp. Severe sore throat and small-pox existed on shore.

"All the men attacked had been vaccinated in youth. Some, subsequently, a second time. Only in one instance was there a doubt

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upon this point. The whole crew were carefully examined. Thirty men, and four boys, were found not to have been previously vaccinated. These were vaccinated on board.

"During the prevalence of the eruption, a considerable number of cases of fever, exactly resembling the eruptive fever, some being very severe, occurred, without being followed by any eruption. The febrile symptoms were observed to abate about the time the eruption generally made its appearance, in the true cases. This fever was unattended by sore throat or other complications. The fever in both cases, at the commencement, was so similar, that it was impossible to say which would, and which would not, be followed by eruption; it was equally severe in both. Some mild cases were followed by profuse eruption, and some severe ones, by none. Secondary fever occurred only in five of the worst cases. Cases of fever and eruption occurred in every mess in the ship, with the exception of three.

"As the ship was under orders to leave Rio harbour, on the 17th of October, for Monte Video, and as there was still a tendency to the spread of the disease on board, I advised the captain to postpone his departure for a few days, in order that we might be within reach of a hospital, should the disease become more prevalent or malignant; that we might have fresh meat and vegetables for the convalescents; that the weather being fine, and the season healthy, attention to ventilation, dryness of decks, and cleanliness would be facilitated; the repose of the sick, and washing and airing bedding secured, which would be doubtful if the ship were at sea; and that the mildness of the climate was beneficial to the sore throats and pulmonary affections existing, and likely to supervene on eruptive diseases.

"Having sent all bad cases to the Civil Hospital; as there was evidently less tendency to small-pox, and especially as a very unfavourable change took place in the climate; the weather having become very wet, and oppressively warm, giving rise to a considerable number of cases of low fever; the ship sailed on the 26th of October, for Monte Video. A marked improvement in the state of health of the ship's company took place on the passage, and the tendency to eruptive disease ceased."

This exceedingly interesting and comprehensive narrative of the epidemic in the Forte, is full of instruction, not only as showing the great diversity of features which may be presented by different cases of the same disease during an epidemic, but as indicating the method of dealing with such an epidemic when it makes its appearance at sea. In harbour, however, in all cases of infectious diseases, it is advisable to remove, not only the bad cases from the ship, but, if possible, every case about which there may be the least suspicion. The most rigid isolation possible on board ship, is at the best, imperfect.

There were two cases of variola in the Satellite; both were contracted at Monte Video, and both were modified in character. Both patients had been vaccinated in childhood.

A single

A single case of variola occurred in the Sheldrake. The disease was contracted at Monte Video, and was modified in form, the man presenting the marks of previous vaccination. The period of incubation, in this case, appears to have been about twelve days, exposure to the disease having taken place on the 17th of March, and the earliest premonitory symptoms, headache, and rigors occurring on the evening of the 29th.

Two cases of small-pox appear in the returns from the Stromboli. As in all the other cases, the disease was contracted at Monte Video. Both men had good vaccination marks, and in both, the disease ran a mild course. These men had been on forty-eight hours' leave, in one instance, thirty-seven days previous to the appearance of the disease; and in the other, forty-one days; but a market boat, and the first and second gigs were in daily communication with the shore until within eleven and fifteen days, respectively, of their being attacked. Although neither of the men belonged to any of these boats, nor to the same messes as their crews, it seems to be more probable that the disease was communicated to them through this channel, than that it had been latent in their system for the prolonged period that had elapsed between their being on shore, and the outbreak of the fever.

A single case of small-pox appeared in the Triton; the patient was a supernumerary seaman from the Forte, and he was seized with the disease about the same time that it broke out on board that ship. It is not stated whether he had been previously vaccinated or not, but the disease ran a very mild course.

Diseases of the Brain and Nervous System:—There was a case of sunstroke in the Alecto. It occurred in the harbour of Rio de Janeiro, in the end of December, which is equivalent to about the middle of summer in northern latitudes. The man had been employed spreading the awning curtains, after which he felt giddy and sick. Shortly before the seizure he again, contrary to orders, went to work in the sun. After some time he was seen to stagger, and but for timely assistance would have fallen. He was immediately taken below, when he became insensible, and was seized with a convulsive fit. Under the repeated application of the cold douche to the head and shoulders, and subsequently of ice to the head and the administration of purgatives the convulsions ceased,

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consciousness was restored, and at the end of the year he was convalescent, and complained only of slight headache.

A death from paralysis occurring in a boy, appears in the returns from the Stromboli. The cause of the disease was a severe injury occasioned by a ladder, which in falling struck him, while he was looking up, across the bridge of the nose, and frontal sinuses. For about two hours he was quite insensible, after which, on regaining consciousness, it was found that there was loss of motion, with much increased sensibility of the lower extremities. He was sent a day or two afterwards to Plymouth Hospital, at which time there was paralysis of the voluntary muscles, from the neck downwards. Subsequently he regained sensation and partial power over the lower extremities, left arm, and sphincters, and at one time he appeared to rally. The improvement, however, was only temporary, for although everything was done to support his strength he gradually sunk and died nearly twelve months after the receipt of the injury. On examining the cervical vertebræ after death, nothing abnormal could be detected. There was no indication of fracture, and the cord appeared healthy. The right hemisphere of the brain is said to have been soft, but otherwise healthy. In fact there were no lesions which could account for the aggravated symptoms under which he laboured, subsequent to the injury.

Diseases of the Organs of Respiration—There is a great decrease in the ratio of cases coming under this head as compared with the preceding year. This is mainly owing to the less prevalence of the milder affections, such as common colds and sore throat. There is also a considerable decrease in the loss to the public service both by invalidings and death. The ratio of invaliding last year was 9·1 per 1,000 of mean force, and of deaths 2·1. During the present period the invaliding rate was only 5· and the ratio of mortality 1·4.

Diseases of the Alimentary Canal.—There is a considerable increase in the ratio of cases of dysentery as compared with the previous year, but the ratio of cases of diarrhœa is almost precisely the same. Of thirty-five cases of dysentery which appear in the returns, twenty-four occurred in the Satellite, and eighteen of these in the Lady quarter of the year, one of them proving fatal. With reference to these cases the following remarks are made by the surgeon of the ship:

"We left Rio de Janeiro on the 11th of February, and arrived at Montevideo on the 21st. Shortly after our arrival occasional cases

cases of diarrhœa began to appear, a not unusual occurrence at this place, at this season of the year, in all ships lately from Rio. These were soon followed by others having a dysenteric tendency, and during the month of March seventeen cases of decided dysentery were placed on the sick list. The disease was of an inflammatory type, characterized by severe abdominal pains accompanied by frequent discharges from the bowels of bloody mucus, and membranous-like shreds of an ashy colour. One case on board proved fatal.

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"It is somewhat difficult to form a decided opinion as to the exact cause or causes for the appearance of so many cases of this disease on board, the crew being otherwise generally healthy. During the autumnal season the disease is more or less prevalent at Monte Video, both afloat and on shore, and just then the cases on shore were said to be more than usual in numbers, and very intractable in form.

"In enumerating the probable causes which may have produced the disease, the climatic and littoral influences recognizable at the estuaries of most large rivers are in full force here, and may be assigned a place. The land is low, the expanse of water great, but of little depth, and although the tides are not remarkable for great rise and fall, and greatly depend upon the winds, yet the water at this season being highly charged with decayed vegetable matter, the result of luxuriant vegetation far in the interior, when acted upon by a scorching sun are sure to engender emanations more or less prejudicial to health."

These, however, he thinks, are not the sole causes to which this disease may be traced; but, first to bad water, which from being procured from up the river is liable to contain a large amount of decaying organic matter; secondly, to unripe, or over-ripe fruits which seamen are so fond of indulging to excess in; thirdly, to too much animal food, men coming from Rio de Janeiro, where the meat is bad and scarce, to the River Plate, where it is good, plentiful, and cheap, being liable to eat excessive quantities of it badly cooked perhaps, and often too recently killed; fourthly, to sudden and great alternations of temperature; and lastly to the overcrowding of the sick on board the ship. There can be little doubt that in a person with a naturally irritable intestinal mucous membrane any one of the four first causes adduced here might occasion an attack of dysentery, but it is to the last that in all probability the epidemic character of the disease was due in the present instance. The proofs of the infectious nature of dysentery are too abundant to permit of any scepticism upon this point, and as the Satellite was lying at Monte Video during the period when dysentery prevailed in the ship, it is to be regretted that the cases, as they appeared, were not at once transferred to the Civil Hospital on shore, instead of being retained on board for treatment.

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There were six cases of dysentery in the Sheldrake, but in one only were the symptoms of an acute character, and in that instance the man was sent to hospital. The disease occurred in the River Plate off Buenos Ayres, where it is said to be very common in summer amongst the crews of vessels. In the present instance it is attributed to the men drinking the water from alongside, especially after turning out of their hammocks in a state of profuse perspiration.

Diseases of the Genito-Urinary Organs.—The ratio of cases of diseases of venereal origin is almost the same as in the previous year. These diseases are not very prevalent upon this station. The surgeon of the Egmont, stationed permanently at Rio de Janeiro says, that during a period of nine months not a single case of syphilis or gonorrhœa had appeared for treatment, although the ship's company were allowed leave once a week. The surgeon of the Stromboli considers the immunity ships' companies enjoy from venereal diseases on this station to be attributable to the remarkable attention paid to ablutions by the prostitutes both in the Brazils and the River Plate. In neither of these places are the women under any Government surveillance.

Wounds and Injuries.—A seaman of the Stromboli was asphyxiated by a portion of food passing into the wind-pipe while he was in the act of vomiting.

Four men were drowned by falling overboard. Two men by the upsetting of boats; four, by the swamping of a gig; one, by being thrown overboard by the flapping of a sail, which struck him; and one was drowned while on leave. Of the men thus drowned, one was a marine, and the remainder were seamen.

The total number of deaths on the station was twenty, of which seven were from diseases of different kinds, and thirteen were the results of accidents. The death rate was 14·5 per 1,000 of mean force, 5·1 being the ratio of mortality from disease, and 9·4 from asphyxia and drowning. The death rate from disease is very much below that of the previous year, but there is a considerable increase in the ratio of mortality from casualties.

Invaliding.—One man was invalided for the sequelæ of fever; one for neuralgia; seven for diseases of the organs of respiration, six of whom were labouring under phthisis; two for disease of the heart; one for inflammation of the liver; four

four for diseases of the genito-urinary organs; seven for rheumatism; two for affections of the special senses; three for diseases of the skin and cellular tissue; one for dyspepsia; one for tape worm; three for wounds and injuries of different kinds; and three for rupture, making altogether thirty-six, or in the ratio of 26·2 per 1,000 of mean force, being about one-third less than obtained in the preceding year.

TABLE, No. 1.

SHOWING the Number of CASES of all DISEASES and INJURIES, and the Number INVALIDED and DEAD, with the Ratio per 1,000 of Mean Force.

DISEASE OR INJURY.	Number of Cases.	Ratio per 1,000 of Mean Force.	Number Invalided.	Ratio per 1,000 of Mean Force.	Number Dead.	Ratio per 1,000 of Mean Force.
Continued and Remittent Fever	128	93·4	1	·7	2	1·4
Intermittent Fever	5	3·6	—	—	—	—
Small-pox	38	27·7	—	—	1	·7
Varicella	22	16·	—	—	—	—
Apoplexy	1	·7	—	—	—	—
Epilepsy	3	2·1	—	—	—	—
Paralysis	1	·7	—	—	1	·7
Delirium Tremens	8	5·8	—	—	—	—
Neuralgia	7	5·1	1	·7	—	—
Inflammation of the Lungs and Pleura	15	10·9	1	·7	—	—
Phthisis and Hæmoptysis	4	2·9	6	4·3	2	1·4
Influenza and Catarrh	128	93·4	—	—	—	—
Cynanche	34	24·8	—	—	—	—
Asthma	2	1·4	—	—	—	—
Functional and Organic Disease of the Heart	9	6·5	2	1·4	—	—
Hæmorrhoids	4	2·9	—	—	—	—
Varix	1	·7	—	—	—	—
Inflammation of the Stomach and Bowels	2	1·4	—	—	—	—
Dysentery	35	25·5	—	—	1	·7
Diarrhœa	197	143·7	—	—	—	—
Constipation and Colic	33	24·	—	—	—	—
Inflammation of the Liver	4	2·9	1	·7	—	—
Jaundice	1	·7	—	—	—	—

TABLE, No. 1.—Showing the Number of Cases of all Diseases, &c.—*continued.*

DISEASE OR INJURY.	Number of Cases.	Ratio per 1,000 of Mean Force.	Number Invalided.	Ratio per 1,000 of Mean Force.	Number Dead.	Ratio per 1,000 of Mean Force.
Inflammation of the Bladder and Kidneys	3	2·1	1	·7	—	—
Syphilis	53	38·6	1	·7	—	—
Gonorrhœa	26	18·9	—	—	—	—
Orchitis	19	13·8	1	·7	—	—
Stricture	5	3·6	1	·7	—	—
Incontinence of Urine, &c.	5	3·6	—	—	—	—
Rheumatism	98	71·5	7	5·1	—	—
Gout	1	·7	—	—	—	—
Disease of the Bones and Joints	6	4·3	—	—	—	—
Ophthalmia	12	8·7	—	—	—	—
Otitis and Deafness	9	6·5	1	·7	—	—
Night Blindness	-	-	1	·7	—	—
Erysipelas	2	1·4	—	—	—	—
Bubo (*Symp.*)	18	13·1	1	·7	—	—
Phlegmon and Abscess	416	303·6	—	—	—	—
Ulcer	116	84·6	2	1·4	—	—
Psora	7	5·1	—	—	—	—
Eruptions, &c.	55	40·	—	—	—	—
Dyspepsia and Debility	103	75·1	1	·7	—	—
Worms	3	2·1	1	·7	—	—
Headache, &c.	7	5·1	—	—	—	—
Wounds and Injuries	428	312·4	3	2·7	—	—
Burns and Scalds	18	13·1	—	—	—	—
Hernia	2	1·4	3	2·1	—	—
Drowned	-	-	-	-	12	8·7
Asphyxia	2	1·4	-	-	1	·7
TOTAL	2,096	1456·9	36	26·2	20	14·5

Table, No. 2.

Showing the Number of Days' Sickness from each Disease, and from Injuries, the Average Number of Men Sick Daily, with the Ratio per 1,000 of Mean Force.

DISEASE OR INJURY.	Number of Days' Sickness on Board.	Number of Days' Sickness in Hospital.	Total Number of Days' Sickness.	Average Number of Men Sick Daily.	Ratio per 1,000 of Mean Force.
Continued and Remittent Fever	1,545	137	1,682	4·6	3·3
Intermittent Fever	50	-	50	·1	—
Small-pox	619	187	806	2·1	1·5
Apoplexy	2	-	2	—	—
Epilepsy	30	-	30	—	—
Paralysis	8	-	8	—	—
Delirium Tremens	53	-	53	·1	—
Neuralgia	74	-	74	·2	·1
Inflammation of the Lungs and Pleura	275	13	288	·7	·5
Phthisis and Hæmoptysis	68	140	208	·5	·3
Influenza and Catarrh	744	-	744	2·	1·4
Cynanche	273	-	273	·7	·5
Asthma	8	-	8	—	—
Functional and Organic Disease of the Heart	168	37	205	·5	·3
Hæmorrhoids	58	-	58	·1	—
Varix	11	-	11	—	—
Inflammation of the Stomach and Bowels	17	33	50	·1	—
Dysentery	744	-	744	2·	1·4
Diarrhœa	1,313	-	1,313	3·5	2·5
Constipation and Colic	195	-	195	·5	·3
Inflammation of the Liver	140	-	140	·3	·2
Jaundice	13	-	13	—	—

TABLE, No. 2.—Showing the Number of Days' Sickness from each Disease, &c.—*cont^d.*

DISEASE OR INJURY.	Number of Days' Sickness on Board.	Number of Days' Sickness in Hospital.	Total Number of Days' Sickness.	Average Number of Men Sick Daily.	Ratio per 1,000 of Mean Force.
Inflammation of the Bladder and Kidneys	39	31	70	·1	—
Syphilis	1,873	280	2,153	5·8	4·2
Gonorrhœa	605	-	605	1·6	1·1
Orchitis	357	24	381	1·	·7
Stricture	53	3	56	·1	—
Incontinence of Urine, &c.	46	-	46	·1	—
Rheumatism	1,108	282	1,390	3·8	2·7
Gout	12	-	12	—	—
Disease of the Bones and Joints	123	35	158	·4	·2
Ophthalmia	174	1	175	·4	·2
Amaurosis and Cataract	25	-	25	—	—
Otitis and Deafness	91	-	91	·2	·1
Erysipelas	27	-	27	—	—
Bubo (*Symp.*)	393	-	393	1·	·7
Phlegmon and Abscess	4,143	17	4,160	11·3	8·1
Ulcer	3,378	590	3,968	10·8	7·8
Psora	89	-	89	·2	·1
Eruptions, &c.	1,125	-	1,125	3·	2·1
Dyspepsia and Debility	865	319	1,184	3·2	2·3
Worms	55	-	55	·1	—
Headache, &c.	38	-	38	·1	—
Wounds and Injuries	4,911	81	4,992	13·6	9·8
Burns and Scalds	167	-	167	·4	·2
Hernia	128	-	128	·3	·2
Asphyxia	2	-	2	—	—
TOTAL	26,235	2,210	28,445	77·8	56·7

TABLE, No. 3.

SHOWING the Number INVALIDED from each Ship employed on the SOUTH EAST COAST of AMERICA Station.

CAUSE OF INVALIDING.	Curlew.	Egmont.	Forte.	Madagascar.	Satellite.	Spider.	Stromboli.	Triton.	TOTAL.
Fever	–	–	–	1	–	–	–	–	1
Neuralgia	–	1	–	–	–	–	–	–	1
Aphonia	–	–	–	–	1	–	–	–	1
Phthisis	–	1	1	–	1	1	1	1	6
Palpitation	–	–	–	–	1	–	–	1	2
Disease of the Liver	–	1	–	–	–	–	–	–	1
Nephritis	–	–	–	–	1	–	–	–	1
Syphilis	–	–	–	–	–	–	1	–	1
Orchitis	–	–	–	–	–	–	–	1	1
Stricture	–	–	–	–	–	–	1	–	1
Rheumatism	–	3	1	1	–	–	2	–	7
Night Blindness	–	1	–	–	–	–	–	–	1
Deafness	–	–	–	–	–	–	–	1	1
Bubo (*Symp.*)	–	–	1	–	–	–	–	–	1
Ulcer	1	–	1	–	–	–	–	–	2
Amputation of Penis	–	–	–	–	–	1	–	–	1
Debility	–	–	–	1	–	–	–	–	1
Tœnia	–	–	–	1	–	–	–	–	1
Wounds and Injuries	1	–	1	–	–	–	–	–	2
Hernia	1	1	1	–	–	–	–	–	3
TOTAL	3	8	6	4	4	2	5	4	36

Table, No. 4.

Showing the Number of Deaths in each Ship employed on the South East Coast of America Station.

CAUSE OF DEATH.	Ardent.	Curlew.	Dotcrel.	Forte.	Madagascar.	Satellite.	Stromboli.	Triton.	Total.
Fever	–	–	–	1	–	–	1	–	2
Small-pox	–	–	–	1	–	–	–	–	1
Paralysis	–	–	–	–	–	–	1	–	1
Phthisis	–	–	–	–	1	1	–	–	2
Dysentery	–	–	–	–	–	1	–	–	1
Choked by Food	–	–	–	–	–	1	–	–	1
Drowned	1	1	1	3	–	1	–	5	12
Total	1	1	1	5	1	4	2	5	20

Table, No. 5.

Showing the Names of the Ships; the Average Complement and the Mean Force; the Number of Cases; the Number of Days' Sickness on Board; and the Average Number of Men Daily Sick in each Ship.

C. Commissioned. P. O. Paid off.

Rate.	NAME of SHIP.	Where Commissioned.	When Commissioned.	Number of Guns.	Tonnage.	Horse Power.	Period.	Average Complement.	Mean Force of each Ship.	Number of Cases.	Number of Days' Sickness on Board.	Average Number of Men Daily Sick.	Ratio per 1,000 of Mean Force of each Ship.	Number discharged to Hospital.
Fourth Rate -	Forte - - -	Sheerness -	28 Jan. 1860	39	2,364	S. 400	Year - -	490	490	754	11,406	31·2	63·6	9
Sixth Rate -	Satellite - -	Devonport -	27 Nov. 1861	21	1,462	S. 400	Year - -	250	250	311	4,108	11·2	44·8	11
Sloops - -	Stromboli - -	Portsmouth	10 Dec. 1861	6	967	P. 280	Year - -	175	175	190	2,037	5·5	31·4	5
	Curlew - -	Devonport -	20 Aug. 1860	9	486	S. 60	Year - -	90	90	161	1,186	3·2	35·5	5
	Ardent P. O.	Woolwich -	20 Oct. 1859	3	800	P. 200	1 Jan. to 5 Aug.	120	70	128	1,043	2·8	82·5	5
	Alecto - - C.	Woolwich -	23 Jan. 1863	3	800	P. 200	1 July to 31 Dec.	110	55	135	1,286	3·5	24·5	3
Steam Vessel -	Triton - - C.	Devonport -	23 Jan. 1863	3	654	P. 260	1 Apr. to 31 Dec.	80	60	90	1,031	2·8	46·6	7
Gun Boats -	Doterel - -	Devonport -	1 Sept. 1861	2	270	S. 60	Year - -	35	35	44	404	1·1	31·4	3
	Sheldrake - -	Devonport -	29 Nov. 1861	2	234	S. 60	Year - -	35	35	57	790	2·1	60·	6
Receiving Ships	Madagascar - P. O.	Devonport -	21 Sept. 1853	8	1,167	–	1 Jan. to 28 Apr.	70	20	51	330	·9	45·	–
	Egmont - C.	Portsmouth	23 Dec. 1862	4	1,780	–	1 Apr. to 31 Dec.	120	90	175	2,655	7·2	60·	–

Table, No. 6.

Showing the Number of Cases of all Diseases and Injuries in each Ship on the South East Coast of America Station.

DISEASE OR INJURY.	Alecto.	Ardent.	Curlew.	Doterel.	Egmont.	Forte.	Madagascar.	Satellite.	Sheldrake.	Stromboli.	Triton.	Total.
Continued and Remittent Fever	1	5	2	1	2	85	9	6	–	11	6	128
Intermittent Fever	–	–	2	–	–	1	–	2	–	–	–	5
Small Pox	–	–	1	–	2	29	–	2	1	2	1	38
Varicella	–	–	–	–	–	22	–	–	–	–	–	22
Apoplexy	*a*1	–	–	–	–	–	–	–	–	–	–	1
Epilepsy	–	–	–	–	–	1	2	–	–	–	–	3
Delirium Tremens	–	–	1	1	–	5	–	1	–	–	–	8
Paralysis	–	–	–	–	–	–	–	1	–	–	–	1
Neuralgia	–	1	–	–	2	4	–	–	–	–	–	7
Inflammation of the Lungs and Pleura	–	1	2	1	4	–	1	3	–	2	1	15
Phthisis and Hæmoptysis	–	–	–	1	–	1	–	2	–	–	–	4
Catarrh	6	23	11	–	2	26	2	32	5	16	5	128
Cynanche	–	1	5	–	2	21	–	1	1	2	1	34
Asthma	–	–	–	–	–	2	–	–	–	–	–	2
Functional and Organic Disease of the Heart	–	1	–	1	3	1	–	2	1	–	–	9
Hæmorrhoids	–	–	1	–	1	2	–	–	–	–	–	4
Varix	1	–	–	–	–	–	–	–	–	–	–	1
Inflammation of the Stomach and Bowels	–	–	–	–	–	–	–	–	–	2	–	2
Dysentery	–	1	–	–	–	–	1	24	6	3	–	35
Diarrhœa	21	13	22	9	20	32	1	33	7	26	13	197
Constipation and Colic	7	1	5	1	2	9	1	3	1	1	2	33
Inflammation of the Liver	–	–	–	–	1	–	–	3	–	–	–	4
Jaundice	–	–	–	–	–	–	–	–	1	–	–	1
Inflammation of the Kidneys and Bladder	–	–	–	–	–	–	–	3	–	–	–	3
Syphilis	2	1	5	2	–	10	1	17	7	4	4	53
Gonorrhœa	–	1	4	1	–	11	1	5	1	–	2	26
Orchitis	1	–	2	–	3	5	–	4	1	2	1	19
Stricture	–	1	1	–	–	–	–	–	–	2	1	5
Incontinence of Urine, &c.	–	–	2	–	3	–	–	–	–	–	–	5
Rheumatism	8	5	16	–	19	10	4	19	1	7	9	98
Gout	–	–	–	–	1	–	–	–	–	–	–	1
Disease of the Bones and Joints	–	1	–	–	1	–	–	2	–	–	2	6
Inflammation of the Eyes	–	–	2	–	1	4	–	1	1	2	1	12
Otitis and Deafness	1	–	1	–	1	4	–	–	–	2	–	9
Erysipelas	–	1	–	–	–	–	–	–	–	1	–	2
Bubo (*Symp.*)	–	–	1	–	3	12	–	2	–	–	–	18
Phlegmon and Abscess	21	32	26	*c*12	26	152	11	*c*71	13	41	11	416
Ulcer	3	7	13	–	13	44	3	24	1	6	2	116
Psora	1	–	–	–	4	2	–	–	–	–	–	7
Eruptions, &c.	3	–	1	–	7	43	–	2	1	18	2	55
Dyspepsia and Debility	15	5	4	1	3	50	3	6	2	6	8	103
Headache, &c.	–	–	3	–	2	–	–	–	–	–	2	7
Worms	–	–	–	–	–	*d*1	*d*1	–	–	*d*1	–	3
Wounds and Injuries	40	25	25	12	45	180	10	38	6	31	16	428
Burns and Scalds	3	2	2	–	1	7	–	1	–	2	–	18
Hernia	–	–	1	–	1	–	–	–	–	–	–	2
Asphyxia	–	–	–	1	–	–	–	1	–	–	–	2
Total	135	128	161	44	175	754	51	311	57	190	90	2,096

a Coup de soleil. *b* Nephria. *c* Anthrax. *d* Tœnia.

PACIFIC STATION.

Pacific Station.

The squadron in the Pacific in 1863 consisted of eighteen vessels, of which four were frigates of the fourth rate; one was a frigate of the fifth rate; there were three frigates of the sixth rate; four sloops; two gunboats; two stationary store ships; and two surveying vessels. There was also a small detachment of marines on the island of San Juan. The mean force corrected for time was 3,220; the total number of cases of all diseases and injuries under treatment during the year was 4,516, which is in the ratio of 1,402·4 per 1,000. This is a considerable decrease as compared with the preceding year. The returns from the different ships are for periods varying from three to twelve months. Of the vessels that were on the station during the whole year, those which showed the smallest ratios of sickness were the Tribune, Cameleon, Topaze, and Mutine, while the largest ratios were in the Devastation, Bacchante, and Hecate.

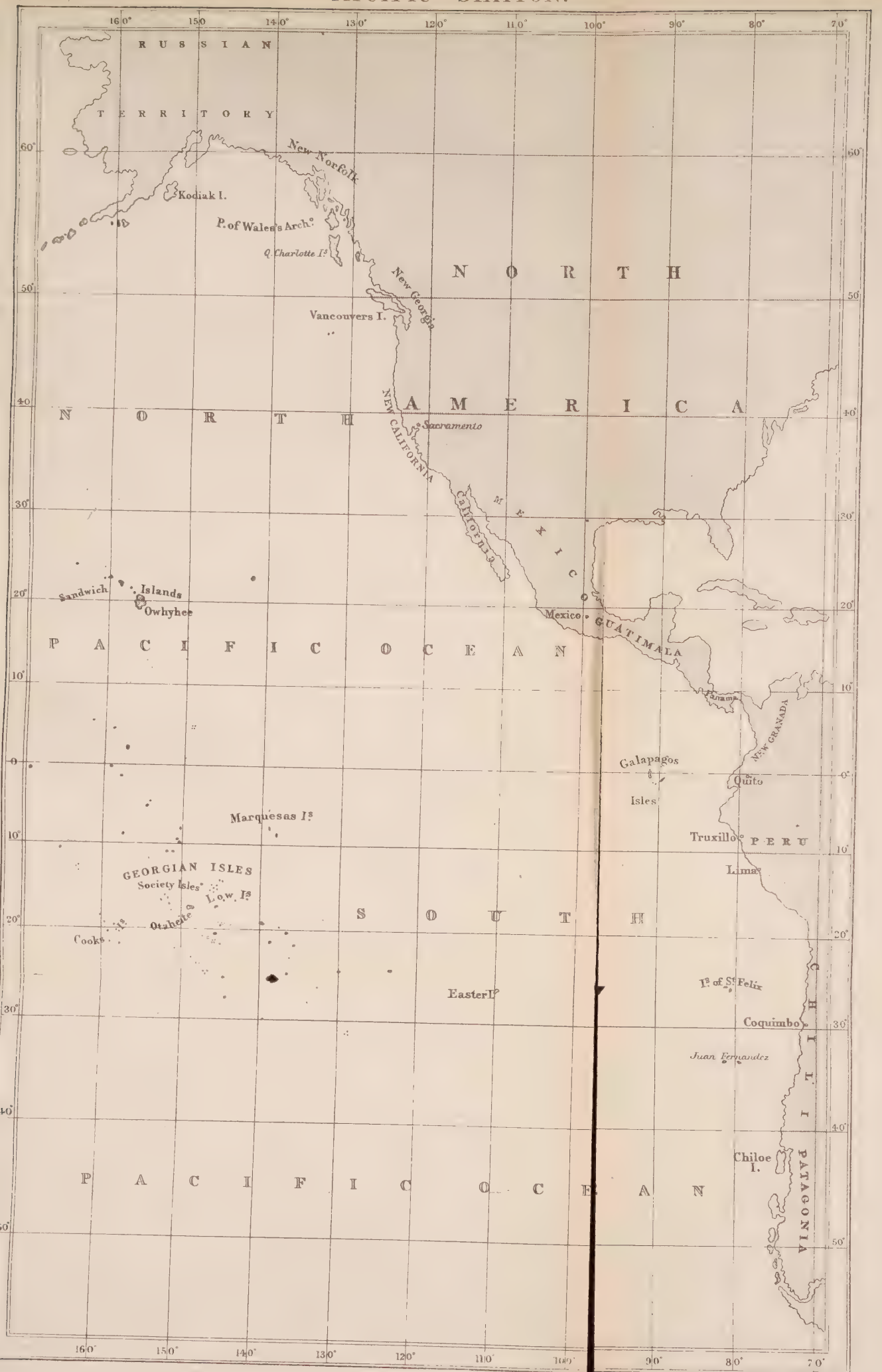
The daily loss of service from fevers was in the ratio of 3·1 per 1,000; from diseases of the brain and nervous system, ·2; of the respiratory organs, 6·6; of the organs of circulation, 1·2; of the alimentary canal, 1·4; of the liver, ·5; of the genito-urinary organs, 7·4, all of a venereal origin; from rheumatism the daily loss of service was in the ratio of 3·6 per 1,000; from diseases of the skin and cellular tissue, chiefly boils, abscesses, and ulcers, 11·6; from dyspepsia and debility, 1·9; and from wounds and injuries, 8·5. The total daily loss of service was equal to about 162 men, which is in the ratio of 50·1 per 1,000, being almost exactly the same as in the previous year.

Fevers.—Two hundred and ten cases of primary fever were under treatment during the year, and of these two terminated fatally. The total loss of service on board ship, and in hospital from these cases was 2,642 days, which makes the average duration of each case upon the sick list about twelve days and a half.

The

(To face p. 128.)

PACIFIC STATION.



The

Pacific Station.

The vessels that furnished the largest number of cases were the Bacchante, Clio, Tartar, and Topaze.

There were twenty cases of primary fever in the Bacchante, some of them were tedious in their recovery, being of a remittent type, while others of an ephemeral nature were attributed to exposure to vicissitudes of climate, and to dietetic excesses. The total loss of service from these cases gave an average of about sixteen days on the sick list to each.

There were fifty-four cases of primary fever in the Clio, fifty of which appeared in the Lady quarter of the year, when the disease assumed an epidemic character. On the 16th of January the vessel anchored in the inner anchorage, and close to the shore, at Manzanilla, on the coast of Mexico. There she remained for three days, during which time it rained for thirty-six hours, an unusual occurrence at that season of the year. The wind came from off the land during the night. The thermometer ranged from 75° to 80°. The following report of the epidemic is by the surgeon* of the ship:—

"On the fifth day after leaving Manzanilla, five cases of remittent fever presented, followed by thirty-four cases in all. On the sixth to the ninth day, eighteen were placed on the list, and others presented themselves till after we left Panama on the 14th of February. I think exposure to malaria at Manzanilla, to be the origin of the epidemic. None of the men were on shore either on duty or on leave, but nearly all the officers were, three of whom were attacked, including myself. The few inhabitants who reside in this wretched village, constantly suffer from fever, as there is a large lagoon twelve miles long, stretching along the shore. This port has the reputation of being the most unhealthy on the whole coast of Mexico.

"There was nothing very peculiar in the symptoms of the fever, the patients complaining most of the pain in the head, back, and shoulders. The pulse in nearly all the cases was small and weak, and not above 90 during the paroxysm, which generally came on towards evening, and lasted from four to five hours. Ten days was the average time the patients remained on the sick list, and nearly all the cases of relapse, especially as the ship came into colder latitudes, assumed an intermittent type."

There was no loss to the service either by invaliding or death from the cases that occurred in this vessel.

In the Devastation there were thirteen cases of primary fever, for the most part of an ephemeral character, although some

* Surgeon Fred. W. Blake.

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some were a little tedious, so that the total days sickness gave an average of eight days to each case on the sick list.

There were eight cases of primary fever in the Hecate, one of which proved fatal. The majority of the cases occurred in the early part of the year after leave given at San Francisco. They were mostly of a mild nature. The fatal case occurred in the person of a young seaman, and followed upon a rather severe debauch. The attack had a very rapid termination, death being apparently dependent on cerebral effusion.

There were forty-two cases of primary fever in the Tartar, thirty-four of which occurred after a visit the ship made to Manzanilla, which, as has been previously stated, is an exceedingly unhealthy locality. The history of the epidemic as given by the surgeon* of the vessel, is as follows :—

"We left Mazatlan on the 20th of July 1863, and arrived at Manzanilla, another Mexican port, on the evening of the 29th of that month. It has the credit of being the most sickly and pestiferous place on the West Mexican Coast, being in the vicinity of extensive marshes and lagoons. We were anchored about 600 yards from the shore, or nearest point of land; it was the middle of the rainy season, and the people on shore told us that the place was healthy, there being only a few cases of fever present. Mosquitoes came off to the ship in swarms, rendering it impossible for the men to sleep on the lower deck at night. There was generally a strong sea breeze during the day, and after sunset light airs from the land, the thermometer ranging from 80 degrees at early morning to 87 degrees during the day. On the nights of the 1st and 2nd of August a very disagreeable smell from the shore, of decaying vegetable matter and putrid mud, was distinctly perceptible on board the ship. On the 3rd of August, on account of the heat, mosquitoes and putrid smells, the ship was shifted out about a mile from the shore, where we remained till the 6th of August, when we left for Panama, calling at Acapulco on the 9th, and remaining there only a few hours. For the first eight days after leaving, the weather was close, cloudy, and oppressive, with much and almost continuous rain. Quinine wine was given to the boats' crews twice daily at Manzanilla, and continued for eight days, as they were considered to be most exposed to malarious influence. On the 12th of August, one of the galley's crew was put on the sick list, with remittent fever. Quinine was not given to that boat's crew, as the captain had an attack of ague, and did not use his boat, which only went on shore on two or three occasions with his steward. On the 13th of August, another case of remittent fever was added, and daily additions of one, two, or three occurred, until the 18th of August, when eight cases were added. From that date it gradually declined, the last case

* Dr. George Mason.

case occurring on the 24th of August. Thirty-two cases of this fever were put upon the sick list; in some the symptoms were severe, in others mild. After the first few cases, it was found to be advisable not to administer emetics, there being so much irritability of stomach and tendency to vomiting; purgatives and enemata being used instead. As soon as the slightest moisture was perceptible on the forehead or other part of the body, quinine was commenced, two grains being given every two hours for twelve hours, and continued at greater intervals after that, till the system was completely under its influence, stopping it whenever head or any other untoward symptoms occurred. Yellowness of the skin and conjunctiva was in some cases very strongly marked, in all of which podophylline in small doses was found a useful addition to the quinine, which, acting peculiarly on the liver, caused copious biliary evacuations from the bowels, and did good service. Most of the cases had a quick and satisfactory convalescence. It is most probable that the above fever was contracted on the nights of the 1st and 2nd of August, when the disagreeable marshy smell from the shore was so distinctly and perceptibly present on board the ship. The ship's company being driven on deck by mosquitoes and sand flies, and thereby having their natural rest broken on several consecutive nights, were rendered more liable to be affected by any miasmatic poison there might be present in the atmosphere. Most of the officers slept in the 'tops' of the ships, where at any rate they were free from insect torture, and comparatively free from the nauseous smells. None of them were attacked with fever. Several officers went shooting on more than one occasion near the lakes and lagoons. To only two of them was quinine given, and one of these had a mild attack of fever."

The average duration of each of these cases on the sick list was about ten days.

Forty-five cases of primary fever were placed on the sick list of the Topaze, of which forty-three were of an ephemeral nature. Of the other two cases, one was of the enteric type, which having run its course was succeeded as is so often the case in this fever, by a very lingering convalescence, the patient being about three months on the sick list. The other entered as "eruptive fever," was of a somewhat anomalous character, and had a fatal termination. The following history of the case is furnished by the surgeon* of the ship.

"The man (a seaman), joined this ship from the merchant service in 1861, and since that time had been frequently on the sick list with trifling ailments, each of which, in his phlegmatic temperament, assumed a lingering form. He had suffered during the winter and spring from indolent bubo, and from cynanche with low fever. The

* Dr. C. Forbes.

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The attack which proved fatal, came on after a debauch on shore, when employed with a working party getting spars out of the bush. At first the symptoms were those of an ordinary, though aggravated case of cynanche, and he was put under appropriate treatment. The tongue, which from the first showed considerable constitutional disturbance, assumed a very peculiar appearance, becoming red like a piece of raw meat, glazed and dry with excited papillæ. The frequency of the pulse increased, while its tone diminished. On the afternoon of the third day, a dusky red rash appeared, followed by a papular eruption covering the whole body; congestion of the lungs set in, and death ensued on the afternoon of the fourth day.

"The means employed, viz., mercurial alteratives, stimulating diaphoretics, stimulants, vinous and alcoholic, and counter-irritants, had not the slightest apparent effect in checking the progress of the disease. A post-mortem examination of the body showed congestion, but no ulceration of the pharyngeal and laryngeal mucous membranes, and some thickening about the rima glottidis. Under the epithelial coat of the tracheal mucous membrane were numerous minute white spots. There was congestion of the lungs, and the bronchi were full of frothy mucus. To classify such a case is not easy. Many such instances of rash and eruption accompany attacks of sore throat in the west of England. Many identical cases occur during the prevalence of scarlatina, and are classed as such. All that can be said in this case is, that there was high fever, with an eruption and rash both on the cutaneous and respiratory surfaces. While thus classifying the above under the head of 'eruptive fever,' it is necessary to remark that owing probably to the continuance of the cold south-west winds, a peculiar form of catarrh was beginning to prevail amongst the residents in the Colony (Vancouver's Island). Beginning at the uvula, accompanied by much lassitude and low fever, the affection gradually spread downwards, until at the bronchial bifurcation, it gave rise to harsh, painful and distressing cough; with free expectoration it there generally terminated. The influence (atmospheric) producing this train of symptoms, acting on a system predisposed, in this man's case, developed disease in a peculiarly severe form. The blood-poison, due most probably, to checked cutaneous transpiration, could not, by any effort of nature, or appliance of art, be eliminated quickly enough to save life."

The total days sickness of all the cases of primary fever treated on board the Topaze, gave an average of seven days on the sick list to each case.

In connection with these cases, the great majority of which were attributable to exposure of various kinds while the vessel was stationed at Vancouver's Island, the following remarks by the surgeon of the Topaze on the meteorology of that island, which is the head quarters of the northern division of the Pacific Station cannot fail to prove interesting:—

"The climate of Vancouver's Island is very fine, healthy, and enjoyable; yet, on this subject, limited experience and partial observation

observation lead to opposing and conflicting statements. The winter is wet, the spring and early summer cold, the later summer and autumn warm and mellow. The two seasons first mentioned, experienced by an individual for the first time becoming acquainted with the aspect of wild and uncultivated nature, convey an impression which the subsequent glowing beauty of the others fails to remove. Hence, in many cases arise differences of opinion and disparity of views; added to this, want of precision in definition makes it sometimes difficult to understand what is meant by a 'fine climate,' or the reverse.

"In his estimate on this point, the climatologist will be guided by data very different from those arising from the personal experiences of casual and cursory observers; the statistics of medicine and of agriculture will be his sure guides. Without at present touching further on these interesting points, it may be useful to take a glance at the succession of the seasons, describing them generally according to deductions drawn from the observation and experience of the last twenty years. The winter rains generally begin about the middle of November, and the rainfall during the succeeding five months is very considerable; yet, through all this wet and drizzly season, it is remarked that no depression is felt; the oppressive atmosphere of a wet season in Great Britain is not known, or but partially felt, in November, at the first break of the season. There are intervening periods, however, of serene and sunny weather, and an average of eight to ten days' snow, with frost, is all that marks the boreal range of climatorial change.

"In the end of March, the warmth of the returning sun begins to be felt, and the bright rays struggling and streaming through the drizzly, misty vapour, cheer and enliven the landscape, gloomy with dark rock and heavy pine. . . . . April comes in sunny, showery, blowing both hot and cold; and all through the spring months, extending as far even as the middle of June, there is generally a harsh, cold feeling in the air. This arises from the prevalence at this period of south-west winds, which blow across a cold ocean from a snow-clad mountain range, twenty-five miles distant, and also to the quantity of uncleared forest and undrained swampy land, the removal of moisture from which, by evaporation, causes a great loss of sensible caloric, and consequent lowering of temperature.

"While, from early in April, the weather is clear, sunny, and dry, yet the warmth of the year, the regular summer, is not fairly established as a rule until after the 21st of June, although great heats may and do come, irregularly, for a few days at a time before that period. But once established, a bright and glowing summer mellows, without a break, into a serene and lovely autumn, which, after the equinox, is continued in gorgeous beauty until the middle of November.

"Of the three winter and spring seasons spent in Vancouver, 1860-61 and 1862-63 most closely resembled each other, that of 1861-62 being entirely exceptional. No such season had been known during the whole time of the occupation of the land by the Hudson's Bay Company, a period of more than twenty years. A severe winter occurred along the whole coast in 1846, and occasional

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severe frosts and falls of snow marked intermediate years; but no fall of snow and persistence of frost such as that of January, February, and March 1862, was ever before known.

"The first six months of 1863 will give a good general indication of the nature of the climate, though by no means a flattering one, since the rainfall which usually takes place towards the end of autumn was this year deferred until the middle of January, causing what may consequently be called a very wet winter and late spring.

"The barometrical and thermometrical ranges, with other particulars, will be found in the following abstract from a daily register kept on board. The barometric reading was taken on the main deck; that of the wet and dry bulb thermometer from a sheltered enclosing-box nailed abaft the mizen-mast.

Month.	Number of Days.	Thermometer.			Barometer.		Difference between Wet and Dry Bulbs.		Weather.							
		Maximum.	Minimum.	Medium.	Maximum.	Minimum.	Maximum.	Minimum.	Days Clear and Fine.	Wind.	Days Overcast and Cloudy.	Wind.	Days Rainy.	Wind.	Days Snowy.	Wind.
1863.		°	°	°			°	°								
January -	31	46	27	35	30·67	29·15	2	0	6	Calm -	10	Round the compass and calms.	13	Calms and variable.	2	North-easterly.
February	28	50	18	37	30·49	29·30	4	0	4	N.W. and calm.	12	Calms and N. by W.	6	East and S. and W.	6	S.W.
March -	31	57	27	46	30·50	29·40	5	0	9	Round the compass.	13	S.S.E. and S. to W.	6	Round the compass.	3	Northerly and S.W.
April -	30	61	39	–	30·57	29·50	5	0	12	Southerly and calms.	12	Calms and E.S.E.	5	S. and S.W., northerly.	–	—
May -	31	72	45	–	30·56	29·75	6	0	18	Westerly and calms.	9	S. S. W., northerly and calms.	4	S.E.	–	—
June -	27	75	52	–	30·37	29·87	8	0	12	Southerly and calms.	13	S.S.W. and calms.	2	S.E. to S.W.	–	—
Totals	178	–	–	–	–	–	–	–	62	- -	69	- -	36	- -	11	—

It is much to be regretted that there is no way of ascertaining the actual rainfall. The above abstract gives only a general view of the nature of the climate, seeing that such rain as may have fallen during the night is not noticed. With a wet, open winter, such as is above described, it is not difficult to predicate the diseases under which a number of men confined on board ship will be most likely to suffer. Coughs and colds, taking the forms of cynanche, catarrh, and febricula will be looked for, and in the columns of the nosological return for the first quarter of the year, it will be found that these in the aggregate make up about forty per cent. of all cases admitted for treatment. In the succeeding quarter, as the rain ceases, this number falls to about seventeen per cent."

Observations

Observations such as these are exceedingly valuable, not only from their affording a means of marking the influence of climate in the production or prevention of disease, but as furnishing most useful practical information with respect to the risks to be encountered from climatic causes in new localities, and so indicating the steps to be taken to obviate them as much as possible.

Intermittent Fever.—There were eighty-three cases altogether of this disease under treatment, fifty-three of which appear in the returns of the Clio. Many of the cases in that vessel appeared in the train of the epidemic remittent fever that prevailed in the first quarter of the year, and were doubtless referable to the malarious influences to which the ship's company were exposed at Manzanilla. The average duration of each of these cases on the sick list was about twelve days.

Eruptive Fevers.—There were four cases of measles in the Topaze; the disease was contracted at Valparaiso, where it was prevalent at the time. A few cases of febricula which also occurred at this time are considered by the surgeon as probably examples of suppressed or undeveloped measles, "or stating it more precisely, and probably more correctly, they were examples of the initiatory febrile disturbance caused in certain individuals by the reception of the specific morbid agent, they previously having had the disease, and this poison of contagion being eliminated 'et sine catarrho, et sine eruptione.'"

Diseases of the Brain and Nervous System.—A fatal case of meningitis occurred in the Bacchante. The subject of the attack, a warrant officer, was of dissipated habits, and the immediate cause of the seizure appears to have been the combined influence of excessive indulgence in stimulants, and insolation, there being reason to believe that while on leave on shore at San Jose de Guatemala, in Central America, he had walked a great deal under a burning sun in the heat of the day. The disease was ushered in with rigors and general muscular pains, which were accompanied or shortly followed by intense pain in the head, of a throbbing or darting character. Great irritability of stomach, with constant hiccough supervened. Twitchings of the muscles of the face, coma, and loss of power over the sphincters preceded death, which occurred ten days after his being placed on the sick list. Although apparently quite insensible on the day of his death,

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he evinced great intolerance of light. On post mortem examination of the body, the membranes of the brain were found to be greatly injected, and here and there over their surface were considerable patches of lymph.

There was a fatal case of apoplexy in the Charybdis. It occurred in the person of a sergeant of marines doing duty as master-at-arms, and the immediate cause of the seizure appears to have been mental excitement consequent upon some important public records of which he had charge being missing. They had only been missed on the day previous to his attack, and the most searching inquiry having failed to bring to light either the manner or the author of their disappearance, he became exceedingly depressed in mind, and while on deck on the morning of his death suddenly fell to the deck insensible. When seen by the surgeon of the ship he was in a state of collapse, with a cold clammy skin, and slow labouring pulse. From this condition he temporarily recovered, and attempted by thrusting his finger into his throat, to excite vomiting. In this he succeeded, and appeared much relieved afterwards. It was observed, however, that he appeared unable to move his left arm or leg. He soon again became insensible, and from this condition he did not rally, death taking place about two hours and a half from the first seizure. On post mortem examination of the body, a clot of blood larger than an average orange was found filling the right ventricle of the brain, and considerable serous effusion mingled with red particles was everywhere present under the membranes. The heart was large, very fatty, soft and friable, and there was a general tendency to fatty degeneration throughout the muscular tissues. He was about five feet seven inches in height, squarely built, with a short thick neck.

Of the six remaining cases that appear under the head of apoplexy in the returns, five were more or less severe forms of coup de soleil, and the sixth was a case of congestion of the brain of a somewhat formidable character dependent upon exposure to extreme heat rather than to the direct rays of the sun. The vessel in which the man was serving had been lying at La Union, a town in San Salvador, where the thermometer was ninety-three degrees in the shade. He ultimately recovered.

Five cases of delirium tremens were under treatment. Of these two occurred in the persons of petty officers, two in seamen, and one in a stoker.

Diseases

Diseases of the Organs of Respiration.—Although there is a considerable increase in the ratio of cases of disease coming under this head as compared with the preceding year, this rather arises from the fact that 1862 was an exceptional year as regards pulmonary complaints, than that 1863 was an unusually sickly one for the station. The average sick rate in fact for these complaints taken for a period of seven years, is 248·0 per 1,000 of mean force; during the present year it was 248·5. In 1862 it was as low as 202·7. There is also an increase in the loss to the service by invaliding, as compared with the previous year, but the death rate is almost precisely the same. By comparing the ratios of the various forms of disease of the organs of respiration in Table I., with the average ratios for the septennial period given in the table introduced into the remarks under this head in the total force, it will be perceived that this year is fairly representative of the normal condition of the station as respects these affections.

There were fifty-eight cases of inflammatory diseases of the lungs under treatment, of which eight were invalided, and four had a fatal termination. In two of these cases the fatal result appears to have been attributable in a great measure to the constitution of the patient being broken down in the one case by syphilis, and in the other by intemperance. Of the latter it is stated, "Of lymphatic temperament, and highly strumous diathesis, a constitution naturally weak had been much impaired by intemperate habits, and, failing in vital power, the system sunk under the disease (pneumonia) in its congestive form;" and of the former, "he was a young man of tall spare conformation, and defective mental development. He contracted syphilis at Valparaiso in March, and in May secondary symptoms supervened; he got rheumatism, bubo, and copper-coloured eruption. This complication of symptoms weakened him greatly, and on the 4th of July symptoms of pneumonia set in, which ran its course rapidly, proving fatal in five days."

An epidemic of influenza preceded by circumstances of some interest prevailed in the Sutlej during the Christmas quarter of the year. Its history is thus given by the surgeon* of the vessel.

"The ship left Vancouver's Island on the 24th of September 1863, to return to Valparaiso, touching at all the ports on the coasts of Mexico,

* Surgeon Wm. Patrick.

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Mexico, California, and Central America. On starting on this voyage the ship was exceedingly healthy, only two per cent. being on the sick list, and those mainly the most trivial complaints; and this favourable condition continued for some time. The ship reached Mazatlan on the 23d of October, and here, for the first time in the cruise, the weather felt uncomfortably warm. Nevertheless, we visited San Blas, Manzanilla, and Acapulco all in succession, reaching the latter on the 6th of November, without any notable increase of sickness, although the heat gradually increased and the weather had become depressing. These ports were free from contagious and epidemic diseases, and the crew being still in robust health, were but little affected by ordinary climatic influences.

"The ship left Acapulco on the 9th of November, and proceeded along and parallel to the coast line, at varying distances from the land, depending on the depth of the bays or projection of the headlands. Throughout this voyage we had usually light and variable winds; but on the 14th of November, while crossing the Bay of Tehuantepec, and about 140 miles off the shore, a strong gale sprung up off the land, attended by a remarkable phenomenon, and followed by an outbreak of influenza in so striking a manner, that they could not fail to be regarded as cause and effect. Though a long distance from the shore at the onset of the gale, it reached the ship charged with the perfume of fragrant flowers, such as orange blossom and jessamine, which scented the atmosphere for a length of time so agreeably, that all hands lingered on deck to inhale the sweet perfume. This phenomenon received no consideration at the time beyond the pleasant sensation it conveyed, but subsequent circumstances invested it with greater importance. Two days after the gale, on the 16th of November, the ship arrived off San José, a small sea-port in the State of Guatemala, and left again in a few hours, without any one going on shore. On the same day two cases of influenza occurred; on the next day, the 17th, four more cases were added; and on the 18th five cases. The ship had now reached La Union, a sea-port in the State of San Salvador, and here also influenza was very prevalent, a large per-centage of the population being affected by it. It was named by them the "calentura"; and not only in this port, but amongst the population of the whole country extending to the westward through Guatemala, the complaint was very severe and prevalent. That some connexion existed between the disease which broke out so mysteriously on board the 'Sutlej' at sea, and the same complaint which we now saw on shore, could not fail to suggest itself, particularly as it was observed that the gale which preceded the disease was wafted from off that part of the land where the complaint at the time was very active; and although we were then some 40 or 50 miles from the coast, we had the strongest evidence, that of our senses, that it carried, even to that distance, abundant exhalations from the land, in the pleasant perfumes we inhaled. Is it not certain that the same breeze was charged with a more subtle and more deleterious agency, imperceptible to the senses, but potent enough to prostrate a large number of the crew? I think the conclusion is inevitable. Altogether fifty-seven cases of influenza were placed on the sick list, but that did

did not include nearly all the attacks, for a great number, though suffering a good deal, were still able to perform their duties.

"One peculiarity of the epidemic on board was the immunity from it enjoyed by the younger part of the crew. Although the ship's company was largely composed of youths, midshipmen and ship's boys between fifteen and eighteen years of age, hardly any of that age suffered, and very few under twenty had it. The contrast between the ward-room and gun-room messes in that respect was very striking. The former, consisting of eighteen members, most of them above thirty years of age, had more than one-third of its members attacked; while the other, with thirty-five members, most of them about sixteen years of age, had only one affected, and he was one of the seniors, about nineteen years of age.

The sanitary condition of the ship throughout was admirable. Originally well constructed, lofty and spacious between decks, there was ample space to berth the crew without over-crowding, and the provision made for ventilation was very effective and answered well, so that in the hottest weather the temperature between decks was very little higher than that of the open air. Much care was bestowed on the holds; they were daily flooded with sea-water, and pumped out dry again."

Diseases of the Heart and Blood Vessels.—Fifty-one cases of various forms of disease coming under this head were under treatment, fourteen of which were invalided, and one terminated fatally. The fatal case was a somewhat peculiar one. The subject of it a seaman, aged twenty-two years, of quiet habits, and healthy appearance, was suddenly seized with acute febrile disturbance, without any specific indication of the nature of the attack. On the following day he was somewhat incoherent, but could be got to talk rationally, and stated that he was better. The heart's action was now found to be feeble and irregular, but free from abnormal sounds. The lungs became implicated, the symptoms being those of passive congestion. Confusion of thought increased, and low muttering delirium set in, followed by total insensibility and death on the twenty-sixth day after being placed on the sick list. The following report of the post mortem examination of the body is by the surgeon of the Sutlej, to which ship the man belonged: "On examining the body the heart was first looked at, and its diminutive and atrophied appearance were first observed. The pericardium was quite healthy, and quite free from any trace of inflammatory action. Inflammation was entirely confined to the endocardium, and here its intensity was demonstrable by its products. In both ventricular cavities were found tassels of partially organised fibrine pendant from the chordæ tendineæ, and fringes of organised lymph studded the margins of the mitral and tricuspid

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tricuspid valves, the vegetations nearly blocking up the auriculo-ventricular openings. The diminutive and atrophied appearance of the heart was remarkable, its weight being little more than half the ordinary average, and the ventricular walls were thin, pale, and flabby. The lungs throughout were congested, and infiltrated with serum. The rest of the viscera were healthy."

Diseases of the Alimentary Canal.—There is a considerable reduction in the ratio of cases of diarrhœa as compared with the previous year, but unfortunately the ratio of cases of the more formidable disease, dysentery, is hardly decreased, the absolute number of cases being precisely the same.

There were two cases of dysentery and seventy of diarrhœa in the Bacchante. Fifty-one of the cases of diarrhœa occurred in the Michaelmas quarter, when the ship was employed on the coast of Mexico and Central America. The surgeon attributes the disease to the sudden change from salt to fresh provisions with the free use of fruit and vegetables. In all probability, however, atmospheric causes had a large share in their induction, as it appears that the weather during some portion of the time was thick, close, and heavy, with frequent sharp although short squalls of rain, thunder, and lightning. The thermometer, at this time, averaged 87°. When the vessel was at Guaymas and Pichilingue the weather was bright and clear and the atmosphere exceedingly dry. Although the thermometer sometimes stood at 100°, very few of the people in the ship perspired.

There is nothing worthy of note in connection with the other cases of disease coming under this head. Several of the persons labouring under dysentery had originally contracted the disease in China. In the only fatal case that occurred in the Squadron, the person, a seaman of the Bacchante, had been labouring under dysenteric diarrhœa for a fortnight before he made any complaint, and from the time of his presenting himself the disease proved so violent that no means employed to check its progress proved of any avail.

Diseases of the Liver.—There were two deaths from abscess of the liver. One of these occurring in an officer of the Bacchante, followed on a severe attack of vomiting and purging, occasioned, it was supposed, by eating some cat fish. These symptoms were apparently being overcome by the treatment to which he was subjected, when they suddenly became

became aggravated in all their features; the purging became very constant and the matters voided principally frothy florid coloured blood. Five days after being placed upon the sick list a swelling commenced to form just under the ensiform cartilage, and appeared to be connected with the free border of the liver. Great pain was experienced on the swelling, which on being manipulated appeared to be somewhat elastic. The face now became shrunken and anxious, and delirium, with rapidly progressing weakness followed. Every means that could be devised to alleviate his symptoms and support strength were employed in vain, he continued to pass an extraordinary amount of blood, and finally sunk in an almost bloodless condition. On post-mortem examination of the body, "The first incision which was carried over the above named swelling caused a large discharge of serum, thin blood, and pus. The whole of the abdominal cavity was perfectly filled with bad smelling pus which was removed in large quantities. The liver was found to be of great size, and an immense excavation was formed by a large abscess, the cause of the swelling before mentioned. The heart and lungs were healthy, but the stomach and intestines were in a high state of inflammation and engorgement. The transverse colon presented some ulcerated spots."

The other fatal case occurred in the person of a seaman of the Sutlej who had suffered previously from inflammation of the liver after service in China. He had recovered sufficiently to enable him to join the Sutlej, but he stated that he had always, from the period of that attack, suffered from pain in his right side. His last seizure was ushered in with acute febrile symptoms and with all the features of hepatitis. This gradually assumed a chronic form, and he ultimately seemed to be steadily improving, until the arrival of the ship on the coast of Mexico, when the great heat induced a recurrence of all his symptoms in an aggravated degree. This was accompanied with great prostration; hiccough became frequent and distressing, and vomiting of pus, and clots of blood mixed with what food he could take became nearly constant. Under these circumstances he rapidly sunk exhausted. The liver after death was found to be enormously enlarged, filling a large portion of the abdominal cavity and pushing the other viscera aside. Its under surface was the seat of several small abscesses which had burst into the cavity of the abdomen, and, where it rested on the transverse colon and stomach these viscera were ulcerated and perforated, but no adhesions had anywhere formed between them and the liver.

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The supra-renal capsules were also ulcerated. The spleen was enlarged.

Diseases of the Genito-Urinary Organs.—There is a great increase in the ratio of venereal diseases as compared with the preceding year, when the ratio, however, was exceedingly small, being for syphilis only 32·6, and for gonorrhœa 10·8. The average ratio of these diseases on this station, taken for a period of seven years, is for syphilis 50·4, and for gonorrhœa 22·1. During the present year they were only slightly in excess of these, being for the former 54·6, and for the latter 22·6. In most of the vessels in which these diseases prevailed they were contracted at Valparaiso, where no system of medical police has hitherto been adopted. The Tartar, however, appears to have suffered a good deal from them at Mazatlan. With respect to this the surgeon says:

"Many cases of syphilis occurred among the crew at Mazatlan, where they were often on leave, two or three of which cases assumed an unhealthy sloughing character. After many representations on the subject, the local government at Mazatlan have wisely taken the matter in hand, and have begun to legislate on the subject. They have established a lock hospital for women, and a medical police who have the power of enforcing bi-monthly examinations. It is to be hoped that other districts in Mexico will follow in the same proper course, and that their authority and instructions may be properly acted up to and carried out, so that the spread of this scourge, syphilis, may be checked, and the disease itself in due time eradicated. The amount of secondary syphilitic affections that prevail in Mexico is almost incredible, resulting in most cases from the primary disease having been improperly treated, and the syphilitic taint being transmitted as an heirloom."

Rheumatism.—There is a very great decrease in the ratio of cases of rheumatism, not only as compared with the preceding year, but with any of the preceding seven years. The mean ratio of cases of rheumatism taken for the seven years (1856 to 1862 inclusive), was 107·9 per 1,000 of mean force, and the lowest ratio during that period was in 1857, when it was only 91·7. During the present year it is 80·1 per 1,000. The loss to the service, however, by invaliding, is slightly in excess of 1862.

Wounds and Injuries.—A man died from the somewhat singular effects of a fall of 18 or 20 feet, which he sustained in attempting to cross a plank to get to a hay-loft to sleep, while on leave. According to his own statement he fel on his

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his face and stomach. His companions carried him into the hay-loft, it being then near midnight, and there they passed the night. When he was brought on board his ship, on the following morning, he stated that he had been very sick, and had been vomiting and suffering severe abdominal pain all night. The pain was referred to a point on the right side, on a level with the umbilicus. At noon, of the same day, the pulse became feeble, the face sunken, and the extremities cold; the pain continued, despite every attempt to relieve it, and he sunk rapidly, and died in the evening. On post mortem examination of the body, the jejunum was found to be torn completely across, at a point about fifteen inches from the pyloric extremity of the stomach. So completely was this done, that the torn extremities were only kept in approximation by the attached mesentery. The abdomen contained about three quarts of turbid yellowish fluid, mixed with debris of bread, and other eatables, of which the man had partaken.

A petty officer was killed, accidentally, while on boat service, by a gun-shot wound of the abdomen. A man sustained a fatal fracture of the skull, by falling from aloft; and another, a fatal fracture of the spine, by falling into the hold of the ship.

Six men were drowned, of these, three fell overboard; two were capsized in a canoe, in which they were paddling while on leave; and one man was drowned by the capsizing of a boat in the surf, at Mazatlan.

A bandsman committed suicide by drowning. He was a man of intemperate habits, and had long been consumptive. Latterly, an intercurrent attack of pleuro-pneumonia, from which, however, he appeared to be recovering, had left his lungs so seriously disorganised as to preclude all hope of his ever playing a wind instrument again; and this circumstance preying upon a mind weakened by disease and intemperance, appears to have prompted him to commit the act.

There were thirty-one deaths altogether, nineteen of which were from various forms of disease, one from causes not stated, and eleven from wounds and injuries of different kinds. The total ratio of mortality, from all causes, was 9·6 per 1,000 of mean force, which is an increase of 1· per 1,000 over the death-rate of the preceding year.

Invalided.—Seven men were invalided for diseases of the brain and nervous system; twenty for diseases of the respiratory organs, of whom twelve were consumptive; fourteen for

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for diseases of the organs of circulation; three for inflammatory affections of the alimentary canal; seven for inflammation of the liver; fourteen for syphilis; one for stricture; nine for rheumatism; one for disease of the knee-joint; four for diseases of the special senses; nine for affections of the skin and cellular tissue; three for dyspepsia; one for cancer; eight for wounds and injuries; and three for hernia, making altogether one hundred and four, or in the ratio of 32·2 per 1,000 of mean force, which is below the invaliding rate of the preceding year.

Table, No. 1.

Showing the Number of Cases of all Diseases and Injuries, and the Number Invalided and Dead, with the Ratio per 1,000 of Mean Force.

DISEASE OR INJURY.	Number of Cases.	Ratio per 1,000 of Mean Force.	Number Invalided.	Ratio per 1,000 of Mean Force.	Number Dead.	Ratio per 1,000 of Mean Force.
Continued and Remittent Fever	210	65·2	-	-	2	·6
Intermittent Fever	83	25·7	—	—	—	—
Measles	4	1·2	—	—	—	—
Disease of the Brain	1	·3	1	·3	1	·3
Apoplexy	7	2·1	-	-	1	·3
Epilepsy	10	3·1	2	·6	—	—
Paralysis	1	·3	1	·3	1	·3
Insanity	-	-	2	·6	—	—
Delirium Tremens	5	1·5	—	—	—	—
Neuralgia	12	3·7	1	·3	—	—
Inflammation of the Lungs and Pleura	58	18·	8	2·4	4	1·2
Phthisis and Hæmoptysis	23	7·1	12	3·7	6	1·8
Influenza and Catarrh	622	193·1	—	—	—	—
Cynanche	91	28·2	—	—	—	—
Asthma	7	2·1	—	—	—	—
Functional and Organic Disease of the Heart	38	11·8	10	3·1	1	·3
Hæmorrhoids	9	2·7	1	·3	—	—
Varix	4	1·2	3	·9	—	—
Inflammation of the Stomach and Bowels	11	3·4	3	·9	—	—
Dysentery	14	4·3	-	-	1	·3
Diarrhœa	273	84·7	—	—	—	—
Cholera	1	·3	—	—	—	—
Constipation and Colic	69	21·4	—	—	—	—
Inflammation of the Liver	26	8·	7	2·1	2	·6
Jaundice	5	1·5	—	—	—	—

TABLE, No. 1.—Showing the Number of Cases of all Diseases, &c.—*continued.*

DISEASE OR INJURY.	Number of Cases.	Ratio per 1,000 of Mean Force.	Number Invalided.	Ratio per 1,000 of Mean Force.	Number Dead.	Ratio per 1,000 of Mean Force.
Inflammation of the Bladder and Kidneys	6	1·8	—	—	—	—
Syphilis	176	54·6	14	4·3	—	—
Gonorrhœa	73	22·6	—	—	—	—
Orchitis	58	17·9	—	—	—	—
Stricture	6	1·8	1	·3	—	—
Incontinence of Urine, &c.	2	·6	—	—	—	—
Rheumatism	258	80·1	9	2·7	—	—
Gout	2	·6	—	—	—	—
Disease of the Bones and Joints	24	7·4	1	·3	—	—
Ophthalmia	20	6·2	2	·6	—	—
Amaurosis and Cataract	1	·3	—	—	—	—
Otitis and Deafness	11	3·4	2	·6	—	—
Erysipelas	2	·6	—	—	—	—
Scrofula	4	1·2	3	·9	—	—
Bubo (Symp.)	71	21·9	—	—	—	—
Phlegmon and Abscess	798	247·8	2	·6	—	—
Ulcer	198	61·4	4	1·2	—	—
Psora	12	3·7	—	—	—	—
Eruptions, &c.	58	17·9	—	—	—	—
Dyspepsia and Debility	202	62·7	3	·9	—	—
Dropsy	4	1·2	—	—	—	—
Worms	6	1·8	—	—	—	—
Headache, &c.	21	6·5	—	—	—	—
Cancer	-	-	1	·3	—	—
Wounds and Injuries	884	274·5	8	2·4	4	1·2
Burns and Scalds	27	8·3	—	—	—	—
Hernia	7	2·1	3	·9	—	—
Drowned	-	-	-	-	6	1·8
Submersion	1	·3	—	—	—	—
Suicide by Drowning	-	-	-	-	1	·3
Not stated	-	-	-	-	1	·3
TOTAL	4,516	1402·4	104	32·2	31	9·6

TABLE, No. 2.

SHOWING the Number of DAYS' SICKNESS from each DISEASE, and from INJURIES, the Average Number of Men Sick Daily, with the Ratio per 1,000 of Mean Force.

DISEASE OR INJURY.	Number of Days' Sickness on Board.	Number of Days' Sickness in Hospital.	Total Number of Days' Sickness.	Average Number of Men Sick Daily.	Ratio per 1,000 of Mean Force.
Continued and Remittent Fever	2,481	161	2,642	7·2	2·2
Intermittent Fever	889	188	1,077	2·9	·9
Measles	70	47	117	·3	—
Disease of the Brain	10	- -	10	—	—
Apoplexy	107	116	223	·6	·1
Epilepsy	190	61	251	·6	·1
Paralysis	8	- -	8	—	—
Insanity	- -	93	93	·2	—
Delirium Tremens	35	37	72	·1	—
Neuralgia	142	- -	142	·3	—
Inflammation of the Lungs and Pleura	1,493	306	1,799	4·9	1·5
Phthisis and Hæmoptysis	759	451	1,210	3·3	1·
Influenza and Catarrh	3,950	152	4,102	11·2	3·4
Cynanche	717	173	890	2·4	·7
Asthma	55	- -	55	·1	—
Functional and Organic Disease of the Heart	1,244	45	1,289	3·5	1·
Hæmorrhoids	264	- -	264	·7	·2
Varix	16	- -	16	—	—
Inflammation of the Stomach and Bowels	216	- -	216	·5	—
Dysentery	183	157	340	·9	·2
Diarrhœa	1,431	58	1,489	4·1	1·2
Constipation and Colic	345	41	386	1·	—
Inflammation of the Liver	455	169	624	1·7	·5
Jaundice	98	- -	98	·2	—

TABLE, No. 2.—Showing the Number of Days' Sickness from each Disease, &c.—*cont*[d].

DISEASE OR INJURY.	Number of Days' Sickness on Board.	Number of Days' Sickness in Hospital.	Total Number of Days' Sickness.	Average Number of Men Sick Daily.	Ratio per 1,000 of Mean Force.
Inflammation of the Bladder and Kidneys	113	-	113	·3	—
Syphilis	4,964	1,167	6,131	16·7	5·1
Gonorrhœa	1,287	145	1,432	3·9	1·2
Orchitis	1,259	-	1,259	3·4	1·
Stricture	136	100	236	·6	·1
Incontinence of Urine, &c.	94	-	94	·2	—
Rheumatism	3,756	531	4,287	11·7	3·6
Gout	46	-	46	·1	—
Disease of the Bones and Joints	543	-	543	1·4	·4
Ophthalmia	223	-	223	·6	·1
Amaurosis and Cataract	10	-	10	—	—
Erysipelas	102	-	102	·2	—
Scrofula	115	-	115	·3	—
Bubo (*Symp.*)	1,854	65	1,919	5·2	1·6
Phlegmon and Abscess	6,039	212	6,251	17·1	5·3
Ulcer	4,560	160	4,720	12·9	4·
Psora	163	-	163	·4	—
Eruptions, &c.	858	30	888	2·4	·7
Dyspepsia and Debility	1,996	360	2,356	6·4	1·9
Dropsy	64	-	64	·1	—
Worms	3 6	-	36	—	—
Headache, &c.	167	-	167	·4	—
Cancer	-	52	52	·1	—
Wounds and Injuries	9,767	287	10,054	27·5	8·5
Burns and Scalds	372	-	372	1·	—
Hernia	29	-	29	—	—
Submersion	1	-	1	—	—
TOTAL	53,712	5,364	59,076	161·7	50·1

Table, No. 3.

Showing the Number Invalided from each Ship Employed on the Pacific Station.

CAUSE of INVALIDING.	Bacchante.	Cameleon.	Charybdis.	Clio.	Devastation.	Forward.	Grappler.	Hecate.	Leander.	Marine Detachment at San Juan.	Nereus.	Shearwater.	Sutlej.	Tartar.	Topaze.	Tribune.	Total.
Insanity	–	–	–	–	2	–	–	–	–	–	–	–	–	–	–	–	2
Epilepsy	1	–	–	–	–	–	–	–	–	–	–	–	–	1	–	–	2
Paralysis	1	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	1
Neuralgia	1	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	1
Vertigo	–	–	–	1	–	–	–	–	–	–	–	–	–	–	–	–	1
Inflammation of the Lungs and Pleura	2	1	–	–	3	–	–	–	–	–	–	–	1	–	–	1	8
Phthisis and Hæmoptysis	4	1	–	–	–	–	–	–	–	–	–	1	4	–	1	1	12
Disease of the Heart	3	1	–	–	–	–	2	–	1	–	1	1	1	–	–	–	10
Hæmorrhoids	–	–	1	–	–	–	–	–	–	–	–	–	–	–	–	–	1
Varix	1	–	–	–	–	–	–	–	–	–	–	–	–	–	–	2	3
Disease of the Bowels	1	–	–	–	–	–	–	–	–	–	–	–	–	–	1	–	2
Hæmatemesis	–	–	–	–	1	–	–	–	–	–	–	–	–	–	–	–	1
Disease of the Liver	2	1	1	–	–	–	–	–	–	–	–	–	2	–	1	–	7
Syphilis	1	–	3	2	–	–	–	1	–	1	1	3	2	–	–	–	14
Disease of the Prostate	–	–	–	–	–	–	–	–	–	–	–	–	1	–	–	–	1
Rheumatism	3	2	1	–	–	–	–	–	–	–	–	1	2	–	–	–	9
Synovitis	–	–	–	–	–	–	–	–	–	–	–	–	–	1	–	–	1
Retinitis	–	–	–	–	–	–	–	–	–	–	–	–	1	–	–	–	1
Corneitis	–	–	–	–	–	–	–	–	–	–	–	–	1	–	–	–	1
Deafness	–	–	–	–	1	–	–	–	–	–	–	–	–	–	–	1	2
Scrofula	1	–	1	–	–	1	–	–	–	–	–	–	–	–	–	–	3
Abscess	–	–	–	–	–	1	–	–	–	–	1	–	–	–	–	–	2
Ulcer	2	–	–	–	1	–	–	–	–	–	1	–	–	–	–	–	4
Cancer	–	–	–	–	–	1	–	–	–	–	–	–	–	–	–	–	1
Dyspepsia and Debility	–	–	–	–	–	–	–	–	–	–	–	–	3	–	–	–	3
Wounds and Injuries	2	1	1	1	–	1	–	–	–	–	1	–	1	–	–	–	8
Hernia	–	–	1	–	–	–	–	–	–	–	–	–	2	–	–	–	3
Total	25	7	9	4	8	4	2	1	1	1	5	6	21	2	3	5	104

TABLE, No. 4.

SHOWING the Number of DEATHS in each Ship employed on the PACIFIC Station.

CAUSE of DEATH.	Bacchante.	Cameleon.	Charybdis.	Clio.	Devastation.	Forward.	Hecate.	Leander.	Marine Detachment at San Juan.	Sutlej.	Tartar.	Topaze.	Tribune.	TOTAL.
Fever	–	–	–	–	–	–	1	–	–	–	–	1	–	2
Meningitis	1	–	–	–	–	–	–	–	–	–	–	–	–	1
Apoplexy	–	–	1	–	–	–	–	–	–	–	–	–	–	1
Paralysis	–	–	–	–	1	–	–	–	–	–	–	–	–	1
Pneumonia	–	–	–	–	1	–	–	–	–	1	–	2	–	4
Phthisis and Hæmoptysis	1	–	–	–	–	1	–	4	–	–	–	–	–	6
Endocarditis	–	–	–	–	–	–	–	–	–	1	–	–	–	1
Dysentery	1	–	–	–	–	–	–	–	–	–	–	–	–	1
Abscess of the Liver	1	–	–	–	–	–	–	–	–	1	–	–	–	2
Wounds and Injuries	–	1	–	1	–	–	–	–	–	–	–	1	1	4
Drowned	1	–	–	–	–	–	–	–	2	1	1	–	1	6
Suicide by Drowning	–	–	–	–	–	–	–	–	–	1	–	–	–	1
Not stated	–	–	–	–	–	–	–	–	–	1	–	–	–	1
TOTAL	5	1	1	1	2	1	1	4	2	6	1	4	2	31

Table, No. 5.

Showing the Names of the Ships; the Average Complement and the Mean Force; the Number of Cases; the Number of Days' Sickness on Board, and the Average Number of Men Daily Sick in each Ship.

C., Commissioned. P. O., Paid off. C. S., Station changed.

Rate.	NAME of SHIP.	Where Commissioned.	When Commissioned.	Number of Guns.	Tonnage.	Horse Power.	Period.	Average Complement.	Average Complement corrected for Time.	Number of Cases.	Number of Days' Sickness on Board.	Average Number of Men Daily Sick.	Ratio per 1,000 of Mean Force of each Ship.	Number discharged to Hospital.
Fourth Rates	Bacchante - -	Portsmouth	18 April 1860	39	2,667	S. 600	Year - -	515	515	837	11,090	30·3	58·8	1
	Leander - C.	Sheerness -	14 April 1863	39	2,760	S. 400	1 Oct. to 31 Dec.	540	135	318	3,377	9·2	68·1	14
	Sutlej - - C.	Portsmouth	20 Sept. 1862	35	3,066	S. 500	1 Apr. to 31 Dec.	550	415	535	6,157	16·8	40·4	4
	Topaze P. O.	Devonport -	16 June 1859	43	2,659	S. 600	Year - -	490	490	530	6,827	18·6	37·9	36
Fifth Rate	Tribune - -	Portsmouth	18 Mar. 1862	23	1,570	S. 300	Year - -	275	275	363	2,986	8·1	29·4	2
Sixth Rates	Charybdis - -	Sheerness -	2 Nov. 1860	21	1,506	S. 400	Year - -	230	230	304	3,776	10·3	44·7	1
	Clio - P. O.	Sheerness -	27 June 1859	22	1,472	S. 400	1 Jan. to 29 Aug.	270	180	346	3,963	10·8	63·5	9
	Tartar - C. S.	Sheerness -	16 Aug. 1860	20	1,296	S. 250	1 Jan. to 30 Sept.	250	185	257	2,720	7·4	40·	–
Sloops	Cameleon - -	Sheerness -	9 July 1861	17	952	S. 200	Year - -	150	150	218	1,921	5·2	34·6	10
	Devastation - -	Woolwich -	12 Dec. 1861	6	1,058	P. 400	Year - -	150	150	214	3,367	9·2	61·3	7
	Mutine - -	Woolwich -	31 Oct. 1859	17	882	S. 200	Year - -	160	160	173	2,241	6·1	38·1	5
	Shearwater - C.	Devonport -	13 Dec. 1862	4	669	S. 150	1 Apr. to 31 Dec.	125	95	148	1,902	5·2	54·7	12
Gun Boats	Forward* - -	Devonport -	9 July 1859	1	233	S. 60	Year - -	40	–	–	–	–	–	–
	Grappler* - -	Devonport -	8 July 1859	1	233	S. 60	Year - -	40	–	–	–	–	–	–
Store Ships	Naiad - - -	Portsmouth	29 Oct. 1846	6	1,020	–	Year - -	25	25	17	381	1·	40·	–
	Nereus - - -	Devonport -	15 Nov. 1843	6	1,094	–	Year - -	35	35	36	609	1·6	45·7	3
Surveying Ship	Hecate - -	Woolwich -	19 May 1860	6	817	P. 240	Year - -	115	115	186	2,057	5·6	48·6	1
Hired Surveying Vessel.	Beaver - - -	- - -	- - -	–	–	–	25 Mar. to 8 June	30	5	3	38	–	–	1
	Marine Detachment at San Juan.	- - -	- - -	–	–	–	Year - -	60	60	31	529	1·4	23·3	4

* No Medical Officers borne.

Table, No. 6.

Showing the Number of Cases of all Diseases and Injuries in each Ship on the Pacific Station.

DISEASE or INJURY.	Bacchante.	Beaver.	Cameleon.	Charybdis.	Clio.	Devastation.	Hecate.	Leander.	Marine Detachment at San Juan.	Mutine.	Naiad.	Nereus.	Shearwater.	Sulej.	Tartar.	Topaze.	Tribune.	Total.
Continued and Remittent Fever	20	–	–	9	54	13	8	–	1	3	4	1	8	2	42	*a* 45	–	210
Intermittent Fever	3	–	5	–	53	6	–	–	–	2	–	1	–	–	10	3	–	83
Measles	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	4	–	4
Inflammation of the Brain	1	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	1
Apoplexy	–	–	–	1	–	*b* 1	–	–	–	–	–	–	–	*b* 4	*c* 1	–	–	7
Epilepsy	4	–	–	–	3	–	2	–	–	–	–	–	–	–	1	–	–	10
Delirium Tremens	–	–	–	2	–	–	1	–	–	–	–	–	–	2	–	–	–	5
Paralysis	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	1	–	1
Neuralgia	4	–	–	–	1	–	–	2	–	1	–	–	–	–	–	4	–	12
Inflammation of the Lungs and Pleura	4	–	1	1	–	11	2	1	1	–	2	1	3	25	1	3	2	58
Phthisis and Hæmoptysis	6	–	–	1	2	2	–	4	–	–	–	–	2	5	–	1	–	23
Catarrh	155	1	39	29	14	16	29	49	4	18	1	4	27	70	20	85	61	622
Cynanche	3	–	3	2	*d* 5	–	2	6	–	6	–	3	5	11	8	33	4	91
Asthma	–	–	–	–	3	–	2	–	–	1	–	–	–	1	–	–	–	7
Functional and Organic Disease of the Heart	9	–	2	1	5	4	–	1	–	–	–	–	1	7	1	7	–	38
Hæmorrhoids	5	–	1	1	1	–	–	–	–	–	–	–	–	–	–	1	–	9
Varix	2	–	–	–	–	–	–	1	–	–	–	–	–	–	–	1	–	4
Inflammation of the Stomach and Bowels	–	–	1	–	*e* 1	*f* 2	–	–	–	–	–	–	–	2	1	3	1	11
Dysentery	2	–	1	1	–	1	2	–	–	–	–	–	–	3	3	–	1	14
Diarrhœa	70	–	17	11	11	25	11	23	1	7	2	2	7	20	13	32	21	273
Cholera	–	–	–	–	–	–	–	–	–	–	–	–	–	–	1	–	–	1
Constipation and Colic	4	–	4	12	7	2	6	3	–	–	–	2	2	13	5	3	6	69
Inflammation of the Liver	3	–	2	1	–	2	–	–	1	1	–	–	–	9	1	6	–	26
Jaundice	1	–	1	1	–	–	–	–	–	–	–	–	–	1	–	–	1	5
Inflammation of the Kidneys and Bladder	–	–	1	–	1	–	–	–	–	–	–	–	–	2	1	1	–	6
Syphilis	7	–	9	20	9	16	16	17	2	6	1	5	19	18	9	17	5	176
Gonorrhœa	4	1	1	6	11	6	3	20	–	1	4	1	–	8	–	4	3	73
Orchitis	14	–	2	5	5	4	–	3	2	4	–	1	2	8	2	6	–	58
Stricture	1	–	1	–	2	1	1	–	–	–	–	–	–	–	–	–	–	6
Incontinence of Urine, &c.	–	–	1	–	–	–	–	–	–	–	–	–	–	1	–	–	–	2
Rheumatism	30	–	23	13	17	10	7	30	5	13	–	4	7	28	15	40	16	258
Gout	–	–	–	–	2	–	–	–	–	–	–	–	–	–	–	–	–	2
Disease of the Bones and Joints	1	–	2	–	–	2	1	1	–	2	–	–	2	3	1	9	–	24
Inflammation of the Eyes	3	–	2	1	1	–	1	–	–	4	–	2	1	3	–	1	1	20
Amaurosis and Cataract	–	–	–	–	–	–	–	–	–	–	–	–	–	–	1	–	–	1
Otitis and Deafness	3	–	–	–	–	1	2	–	–	–	–	–	1	2	–	1	1	11
Erysipelas	–	–	–	–	–	–	–	1	–	–	–	–	–	–	1	–	–	2
Scrofula	–	–	–	1	–	–	–	–	–	–	–	–	–	1	–	–	2	4
Bubo (*Symp.*)	2	–	2	8	7	4	2	10	–	6	–	–	1	6	2	20	1	71
Phlegmon and Abscess	191	1	32	*g* 65	30	25	36	43	4	52	1	3	28	92	41	*h* 44	110	798
Ulcer	29	–	11	12	18	7	7	19	3	9	1	1	1	44	4	14	18	198
Psora	–	–	–	2	–	–	–	4	–	–	–	1	2	3	–	–	–	12
Eruptions, &c.	18	–	2	6	7	3	–	4	–	–	–	–	2	4	1	6	5	58
Dyspepsia and Debility	55	–	1	18	10	7	17	8	1	2	–	1	1	31	16	11	23	202
Headache, &c.	2	–	4	1	1	1	–	1	–	–	–	–	–	–	–	11	–	21
Dropsy	–	–	–	–	–	–	–	–	–	–	–	–	–	*i* 2	*i* 1	*k* 1	–	4
Worms	–	–	–	*l* 1	3	–	–	–	–	–	–	–	–	2	–	–	–	6
Wounds and Injuries	174	–	47	70	59	41	26	65	6	34	1	3	26	92	51	110	79	884
Burns and Scalds	5	–	–	–	2	1	2	2	–	1	–	–	–	7	3	2	2	27
Hernia	1	–	–	2	1	–	–	–	–	–	–	–	–	3	–	–	–	7
Submersion	1	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	1
Total	837	3	218	304	346	214	186	318	31	173	17	36	148	535	257	530	363	4,516

a 1 Enteric Fever. *b* Coup de Soleil. *c* Congestion of Brain. *d* 1 Diphtheria. *e* Hæmatemesis.
f 1 Hæmatemesis. *g* 1 Carbuncle. *h* 2 Carbuncle. *i* Hydrocele. *k* Œdema. *l* Guinea-worm.

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The mean force on the West Coast of Africa in 1863, corrected for time, was 1,930. The squadron comprised three frigates of the sixth rate; one sloop; twelve gun vessels; three steamvessels, one gun-boat, and three stationary store ships. The time included in the returns, varies from six months to a year. The total number of cases of all diseases and injuries under treatment throughout the year was 3,830, of which eighty were invalided, and forty-six died. The sick rate was 1,984·4 per 1,000 of mean force; the ratio of invaliding, 41·4; and the death-rate, 23·8. All these ratios are in excess of those of the preceding year, particularly the ratio of invaliding, which is nearly doubled.

Of the vessels that were on the station during the whole year, excluding the Handy and the storeships, which were stationary, and altogether exceptional vessels, those showing the smallest ratio of sickness were the Zebra, the Espoir, and the Rattlesnake; the largest ratios of sickness appear in the return of the Lee, the Griffon, and the Dart. The Antelope, which was nearly twelve months on the station, shows a comparatively small sick-rate.

In the Zebra and Espoir, the comparative healthiness of the crews appeared to be chiefly attributable to those vessels not having been employed in river service throughout the year; while much of the sickness in the Lee was from remittent fever following exposure to malarious influences to which her crew were subjected, while the vessel was under repair and beached at Fernando Po.

The daily loss of service from febrile diseases was equal to about twenty-seven men, which is in the ratio of 13·8 per 1,000 of mean force, a slight increase as compared with the preceding year. From diseases of the brain and nervous system, the loss of service daily was in the ratio of ·4; of diseases of the organs of respiration, 3·4; of the organs of circulation, 2·3; of the alimentary canal, 2·4; of the liver, ·3; from diseases of the genito-urinary organs, it was

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was 3·8; from rheumatism, 4·2; from diseases of the special senses, ·7; from various affections of the skin and cellular tissue, 14·1, of which 7·3 were from abscesses and common boils, and 5·4 from ulcers; from dyspepsia, 2·5; and from wounds and injuries of various kinds, and hernia, 10·1. The total daily loss of service from all forms of disease and injury, was equal to about 120 men, or in the ratio of 61·8 per 1,000, which is a considerable increase as compared with the preceding year, although it is almost precisely the same as obtained in 1861.

Fevers.—There were 917 cases of fever under treatment throughout the year, 703 of which were either of a continued or remittent type, and 214 were cases of ague. The loss to the service by the sequelæ of these affections, was nearly double that of the preceding year, but the rate of mortality was somewhat below it. The total days' sickness on board ship and in hospital from the cases of continued or remittent fever, gives an average of about eleven and-a-half days treatment to each case, while the average duration of the cases of intermittent fever on the sick list, was about eight days.

Continued and Remittent Fevers.—There were eight cases of primary fever in the Antelope, four of which were of an ephemeral nature. The remaining four, however, were exceedingly tedious in their recovery, the average duration of each case on the sick list being about forty-four days.

Of fourteen cases of primary fever that appear in the returns of the Archer, ten were contracted in the Christmas quarter of the year, and were attributable to service in the River Congo. The surgeon* of this vessel, in some topographical remarks on this river, says—

"That the Congo is one of the most unhealthy anchorages, is, I imagine, a mistake, as it is only in particular years and times of the year, that fever is heard of as being prevalent; but the innumerable creeks and tributaries of the river, with the *débris* of leaves, &c., exhaling poison, must exert a bad influence on the health of men. The best anchorage and the healthiest is Turtle Cove. The climate of the Congo during the short time the ship was stationed on this part of the coast, during the months of October, November, and December, was comparatively cool, the thermometer averaging 82 degrees. After that time it began to grow warmer, and the sea-breeze, which up to the end of December had been

* Surgeon Owen J. Llewellyn.

been regular, began to be fainter and variable, sometimes not appearing for two or three days. The rainy season is very variable in the Congo; occasional showers fall in the months of September, October, and November, but there is no regular rainy season in the Bights. No two accounts of the seasons agree, so that it is almost impossible to state with accuracy or correctness, anything connected with the climate, except from personal experience. Fever does not seem to attack the natives, excepting in a mild ephemeral form."

The total days' sickness from all the cases of primary fever in this vessel, gave an average duration of about nine or ten days on the sick list to each case.

All the cases in the Bloodhound were of an ephemeral nature, the treatment of each case only requiring on an average three or four days' confinement to the sick list.

There were eighteen cases of primary fever in the Brisk, some of which were exceedingly virulent. Six of these cases were contracted at Sierra Leone, and with reference to the remaining twelve, all of which occurred in the Lady quarter of the year, the following remarks are made by the surgeon * of the ship:—

"Seven were contracted while the ship lay at anchor at Whydah, five in persons who had suffered from that disease previously in the ship within the last twelve months, and all were no doubt caused by the noxious exhalations borne off by the land wind at night acting on constitutions debilitated by climate in general, and the sultry oppressiveness of the weather of the period. One resulted from exposure at Fernando Po, and did not become developed until seventeen days after such exposure. It was very severe, altogether owing to the real character of the disease having been masked by catarrh, and congestion of the right lung. The subject, a lad of full habit and exceedingly hyperæmic temperament, had suffered repeatedly during the last two years from inflammatory attacks of the lungs and pleura. He was put on the sick list on the 17th of February with pyrexia, and as there was a good deal of cough and dyspnœa depending on congestion of the right lung, the case was treated accordingly. In a few days the pulmonic affection was removed, and with it disappeared the febrile symptoms. On the evening of the 21st, without any previous warning or febrile accession, delirium set in, and speedily merged into deep sopor and semi-coma with dilated pupils, a pulse varying from forty to fifty-four, and complete insensibility. The head was at once shaved, and blistered with the liquor vesicatorius, and as the power of deglutition remained on introducing fluids into the mouth, quinine, concentrated soups and wine were alternately and perseveringly administered between 8 p.m. of the 21st and 4 a.m. of the 22nd, when he slowly regained

* Surgeon T. Haran.

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regained consciousness after having taken eighty grains of quinine and a great deal of wine and nourishment. Delirium continued for two days after, and he became convalescent comparatively soon, notwithstanding the persistence of gastric irritability and general prostration, having been able to sit up a little daily by the 5th of March. Two relapses, both caused by his own imprudence in going on deck without permission, occurred subsequently, the first on the 10th attended with delirium, and the second on the 16th characterized by the most rapid progression of emaciation I ever observed. Quinine, wine, and careful support constituted the principal treatment on both occasions, and with such good effect that the boy, though weak and emaciated on our arrival at Ascension, was quite convalescent, and daily improving. As the ship was about to proceed to Sierra Leone I did not think myself justified in exposing him once more to the malarious influences of that most unhealthy anchorage, so he was sent to the hospital for the purpose of being invalided from the station. I have described this case thus fully in order to illustrate further the invaluable effects of large doses of quinine, and the insidious character many cases of African remittent fever are apt to assume.

"The four remaining cases were caused by exposure in Loando harbour. Two became developed fourteen days, and a third sixteen days after leaving the anchorage. Diarrhœa and gastric irritation were prominent symptoms in all, but no dangerous complication occurred."

The average duration of each case of primary fever in the Brisk was seventeen days.

In the Dart there were thirty-eight cases of primary fever, but they were almost altogether of an ephemeral nature. There were in fact only three cases of any severity, and of these one was ultimately invalided. The total days' sickness from these cases gave an average of eight days on the sick list to each case.

There were fifty-seven cases of primary fever in the Griffon, thirty of which occurred during the Lady quarter, and are attributed by the medical officer to the high temperature that prevailed at St. Paul de Loando, where the vessel was at the time the majority of these cases occurred, and partly to the fact that the stamina of the ship's company had been impaired by excesses committed recently at St. Helena, where leave had been granted them for the first time for eighteen months.

In the Handy, a gunboat permanently stationed in the Lagoon at Lagos, there were forty-one cases of primary fever, but only two or three were of any importance. The following remarks on some of the causes contributing to so favourable a result in a vessel situated in so unhealthy a locality are by

by the surgeon* of the vessel, who is also the colonial surgeon of Lagos :—

" The small number of cases which appear in the journal requires comment, and may be attributed first, to an arrangement which at my suggestion was adopted by the commodore, viz.: sending any of the crew who required, in my opinion, change of air, into any cruizer which happened to anchor off Lagos, for the purpose of taking a short sea trip. This system has worked so admirably that I take every advantage of the opportunities afforded, and send any one for an occasional cruize whose health appears to be failing, even although he be not sufficiently ill to be placed on the sick list. I may mention that, in a small steamer nearly always at anchor, many men can continue at their duty although under medical treatment, who in a large ship or a sea-going vessel would have to be placed on the sick list. Another cause for our apparent freedom from disease is the small number of our white crew, the usual number being about seven, most of whom are taken back to the flagship when she touches here, in exchange for new hands. Then, again, a ship anchored in the middle of a lagoon nearly a mile wide, and in a position to catch the breeze from over the bar instead of over mangrove swamps, is much more likely to escape disease than one like the Investigator which is continually navigating the creeks. We have not had a single death among the white crew during the period of this return, and only three serious cases of fever, although among the merchant shipping and among the inhabitants on shore we have had much fever and dysentery. In the town of Lagos we certainly have a larger amount of sickness than exists in any other part of the coast, with the exception perhaps of M'Carthy's Island up the Gambia, but I do not consider it of nearly so fatal a character. In corroboration of this statement I may mention that I have only lost three patients from fever during the past seventeen months among the white population, and of seven cases of dysentery, five had been hard drinkers."

The Investigator was much employed in the lagoon at Lagos, and in the rivers Lagos, Benin, and Niger. In the latter river she was employed from the 7th of September to the 16th of October, and the exposure consequent thereon resulted in thirty-eight of the fifty-three cases of primary fever which appeared in this vessel. The medical officer† states that " the climate of the river above the delta did not cause much of the sickness, as I fancy many of the cases of fever were caused by exposure at the mouth of the river, and by the heavy rains while steaming through the delta. Further up, the banks of the river became much higher, and the air

* Surgeon Henry Eales.

† Assistant Surgeon J. G. Cruickshank.

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air although very warm was more salubrious. The heat of the sun at Egga, the highest point the ship reached, was very great, and the absence of any breeze made it very uncomfortable ; this may have retarded the convalescence of some, but I do not think it was the cause of any fresh case of fever." The returns from this vessel are of the most meagre description, so that little or nothing of any interest or value is to be obtained from them. It would appear, however, that the average duration of each case of fever on the sick list was between seven and eight days.

Of forty-seven cases of primary fever that appear in the returns of the Lee, thirty-seven occurred in the Lady quarter, and were referable, as has been previously stated, to the exposure to which the crew were subjected while the vessel was beached and under repair at Fernando Po. Quinine in four grain doses, was given to each of the crew once a day during the whole of this period, and the medical officer thinks that many more cases would have happened but for this invaluable prophylactic agent. The average duration of each of these cases was about ten days.

The majority of the cases of primary fever in the Mullet were of an ephemeral nature.

In the Pandora there were only nine cases of primary fever, but they appear to have been of a somewhat tedious nature, the average duration of each case on the sick list being about fifteen days. The medical officer,* however, takes little or no notice of them in his remarks. He says, "The boats were sent away cruizing several times; on the first occasion at Cape Lopez, I did not supply any quinine to them, as they were not going up any river, and it was their first expedition. I had, however, three cases of slight fever in the men who were away. Every time since then I have supplied the boats with quinine wine, which has been served out to each man every morning, and I have not been able to trace a single case of fever to boat service since I have done so."

There were fifty cases of primary fever in the Philomel, and the average duration of each case on the sick list was about five or six days, so that the type was, in the majority of instances, evidently a mild one. Some of the cases were contracted

* Assistant Surgeon George E. Farr.

contracted at Monrovia, where the vessel lay for some time, and the fever chiefly affected those who were employed on shore.

Nineteen cases of primary fever appear in the returns of the Ranger, the average duration of each case on the sick list being about twelve days. Thirteen of the cases occurred during the Midsummer quarter, and some of these are attributable to exposure at Cape Coast Castle, where a party of men were landed to co-operate with the troops on shore. Although much exposed to malarial influences, it appears that it was not thought necessary to issue quinine to these men. The medical officer* of the Ranger says :—

"These men had been chiefly employed on shore in building and fortifying Fort Frederick, on Connor's Hill, one of the out-works at Cape Coast Castle. For this purpose they had occasionally to go into the bush to cut wood, a duty which necessarily exposed them considerably to the malaria of the country. They were also exposed a good deal to the weather and to the sun, which, at this season of the year is particulary hot. Before commencing work in the morning they had coffee, then worked until eight o'clock, when they breakfasted. During the heat of the day they were not allowed to work in the sun. In the afternoon they again worked from half-past three until six o'clock; thus, every reasonable precaution was taken to prevent sickness. Quinine was not given to the men every day as a prophylactic, nor indeed, so far as my experience goes, does it seem to be necessary, for I have been taken ill of fever myself, and I know others who have been taken ill also, when actually in a state of partial cinchonism, the quinine having been taken to prevent fever."

Fortunately the value of quinine as a prophylactic in these cases, is too firmly established to justify any waste of time in exposing the fallacy of this mode of reasoning, and happily in the present instance its results were not so disastrous as they might have been. As it was, of all the men landed, one-third were affected subsequently with remittent fever, one of the cases being very severe, and presenting much cerebral excitement.

There were 104 cases of remittent fever in the Rattlesnake, more than one-half of which were consequent upon exposure at Cape Coast Castle, where, as stated previously, a naval brigade was landed. This force, which was composed of 133 men from the Rattlesnake, and nineteen from the

* Assistant Surgeon Constantine Keenan.

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the Ranger, was employed in garrison and out-work duty from the 15th of April to the 19th of August, and was distributed to four places, viz.: the Castle, Fort William, and to two earth-works thrown up, the one at Connor's Hill, and the other at Prophet Hill. The object of the brigade was to co-operate with the troops in driving the Ashantee army from the British Protectorate, which it had invaded. During this time sixty-six cases of remittent fever were entered on the sick list, many of them being of a very low type, and one proving fatal; this occurred in the person of a stoker, a man grossly addicted to intemperance, who was stationed at Connor's Hill. There was nothing particular in the nature of the attack which carried him off, excepting the rapidity with which it ran to a fatal termination, an event in a great measure attributable to his previous dissipated habits. Unfortunately the medical history of this brigade is of a very meagre description, and furnishes no information whatever as to what prophylactic means, if any, were adopted in consideration of the unhealthy nature of the locality in which the men were so long employed. The only information indeed of a general character is contained in the following extract from the journal of the Rattlesnake, the surgeon* of which ship was in charge of the men on shore :—

"Several cases of fever occurred at Connor's Hill; this is the more remarkable, as the site is universally considered as one of the best in Cape Coast in point of salubrity, being situated at a considerable height from the sea level, and open to the sea breeze, and there being no swamps in the vicinity. On going up there, our men had a wooden hut built for them, which they converted into a more substantial fabric, by surrounding it with mud walls applied against the boards. This appears to me to have been the cause of the sickness, as the walls were damp, and remained so for a considerable time. Had the mud walls been omitted, I venture to assert, that the men at Connor's Hill would have been healthier. . . . . On the 19th of August we all embarked on board the Rattlesnake. During our stay in Cape Coast, from the 15th of April to the 19th of August, the weather was remarkably fine; very little rain fell, and the temperature was equable. There is, however, great humidity in the atmosphere, which would render an abode there deleterious in cases of phthisis, and a removal from the place in those cases is essential. We did not experience anything that may be compared to the Harmattan, the prevailing winds and current being from westwardly directions."

There

* Surgeon G. F. A. Drew.

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There were thirty-seven cases of primary fever in the Sparrow, twenty-four of these being contracted in the Michaelmas quarter of the year, and thirteen in the Christmas quarter. The total days' sickness from these cases gave an average duration of about a fortnight to each case. During the Michaelmas quarter, many of the cases that occurred were attributable to exposure in the River Gallinas, up which a party composed of the captain, three officers, six blue jackets, seven marines, and ten kroomen, ascended as far as a town or village named Guidemah, situated about ten miles from the mouth of the river. There they remained for three nights, and on the morning of the fourth day, on attempting to regain the ship, which was anchored off the mouth of the river, the surf was so high that one of the boats was capsized, and one officer, one white seaman, and three kroomen were drowned. This necessitated their remaining on shore that night and the following day (Saturday) and night, which they passed as well as they could in huts improvised with the oars and sails from the boats. These afforded but little protection from the violence of the storm, which had increased very much, the rain falling in torrents. On Sunday morning part of the men and officers returned to the ship, leaving the captain with his gig's crew and a corporal of marines, who did not get off until the following day. The result of this exposure, with the character of the locality in which the tents were pitched, is thus given by the medical officer* of the Sparrow :—

"The tents were pitched on a rising ground between the sea and the river, about a hundred yards from the latter. There were only a few shrubs close to the tents, but at a short distance on the side towards the river there were numerous pools of stagnant water, surrounded by dense vegetation. On Saturday morning the surf had gone down a little, and the captain succeeded in reaching the ship. He returned in the evening, bringing rum and provisions for the party on shore. We remained another night under canvas; it rained a little, but the tents had been made more efficient, and no one got wet. On Sunday morning a boat came from the ship, and anchored outside the surf; all the party were taken off to her separately in a Kroo canoe, excepting the captain, his gig's crew, and the corporal of marines. These remained on shore for another night, and reached the ship at twelve o'clock on Monday, having been absent

* Assistant Surgeon George S. A. Campbell.

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absent from the ship since the previous Tuesday. I will now recapitulate the exact time each man was exposed to the malarious influence. Tuesday, Wednesday, and Thursday nights were passed at Guidemah; Friday and Saturday on the beach under canvas. During this time quinine was regularly served out under my own observation, night and morning. Part of the men and officers returned to the ship on Sunday morning, leaving the captain, his gig's crew, and the corporal of marines on shore, seven in all, who spent another night on shore. These had no quinine during the last twenty-four hours they were on the beach; I sent them some by a boat, but it was found impossible to hold any communication, as the surf had again risen. The following is the mode in which I administered the quinine; four grains were dissolved in an ounce and a-half of water, with half-an-ounce of rum, and ten minims of dilute sulphuric acid. This I found a very convenient way of giving it, as, from the smallness of the dose, it was easily taken at one mouthful. The only ones of the party who had not their quinine regularly were those who remained on shore during Sunday night, they missing it on that evening and following morning. I should make a further exception in the case of the captain, who did not take his for the first two or three times. After that he took it regularly until the Sunday evening, as mentioned above. The quinine was continued for fourteen days after their return on board, according to the instructions. I discontinued the rum, as I did not consider it any longer necessary.

"The first man was put on the list on the 1st of September, the day after his return to the ship. He was one of those upset in the boat. He had had fever at Fernando Po three months before. His was not a severe case; he remained fourteen days on the sick list. The next case was that of the captain's coxswain; he was put on the list on the 5th of September. He was one of those who remained on shore one night without quinine. This was a very severe case, the man being fifty-three days on the sick-list. On the 7th and 8th, the remainder of the gig's crew and the captain were taken ill. The corporal of marines was seized with fever on the 18th, thus including all who remained on shore on Sunday night. The marines of the party, the master's assistant, and myself, who had taken quinine regularly, escaped from fever entirely. There were twelve more cases added to the sick list from among the ship's company, who had no direct communication with the shore while the ship lay at anchor off Freetown. All these were mild in character, only remaining from seven to nine days on the sick list."

The following observations have reference to the cases of fever that occurred in the Christmas quarter:—

"The ship remained some days in the Gambia, during which time a party of marines and blue jackets were employed in shifting one of the buoys at the mouth of the river. They were on board the small colonial steamer, and were well protected at night from the dew, but during the day they were considerably exposed to the rays

rays of the sun. Quinine and rum, according to the formula given above, was regularly served out during their absence (three days and a half); but on their return to the ship I discontinued its use as they had never been within four miles of the shore, and were therefore unlikely to contract the fever. At least, no cases of fever occurred which I could attribute to this exposure. From the Gambia the ship proceeded to Goree on the 2nd of November, and remained there three days with great benefit to the ship's company, returning to Bathurst on the Gambia on the 6th, from whence she left for Freetown on the 8th, touching at Bulama island. Three cases of fever were put on the list while in the Bejuga channel, which is very narrow, with low thickly wooded islands on each side. Two of these were remittent, and one intermittent; all the patients had had fever before. Quinine was not administered. The ship arrived at Sierra Leone on the 20th of November, and remained there until the 28th, when she left to cruise off Gallinas river and Cape Mount. During the stay at Freetown, the captain's steward was put on the list with a very severe attack of remittent fever. He had slept two nights on shore while the ship was at Bulama island. No one else besides those mentioned contracted fever by exposure to the malaria among the islands in the Bejuga channel. On the 30th of November, while the ship was at anchor off Solyman, a factory situated near the Gallinas river, the captain again went on shore and ascended the river, remaining away from the ship for three days. He had taken his cook and coxswain with him, not the one that had been up the river before. The captain refused to take the quinine I had made up for him. He and his party suffered severely for his temerity, as the cook was taken ill on the 13th of December (a primary case), the coxwain on the 15th (also a primary case), and the captain himself on the 16th. All three were true cases of remittent fever."

There were fifty-seven cases of primary fever in the Torch, but of these forty were of an ephemeral nature. The crew of this vessel enjoyed a very fair measure of health, although they were at different times placed in positions where much sickness might have been anticipated. This comparative immunity from the more severe forms of climatic disease, was undoubtedly attributable to the great care taken of the men, and the regularity with which quinine was employed as a prophylactic:—

"Towards the latter end of April," the medical officer* writes, "we were stationed to guard the mouth of the Congo, and as a very suspicious vessel was at anchor up the river, the work was rather harassing. Every night one boat at least, and frequently two, were detached

* Assistant Surgeon C. I. Fennell.

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detached from the ship to assist in watching the river, and from the heavy dews and occasional rains it might have been expected that some sickness would be the result; but although I had a few cases of fever afterwards, I do not think any one of them was distinctly traceable to the exposure. To every man who went away an extra allowance of grog was given, and four grains of quinine night and morning." . . . . "In November the vessel having become leaky, was sent to Ascension for repairs, but when half way across, the leaks had increased so much that it was deemed advisable to make for the nearest land (Island of Anna Bon.) She subsequently reached Fernando Po, where it was found necessary to strip the vessel, remove all her stores, and beach her to repair the defects. This of course necessitated a good deal of hard work and exposure, but I am happy to say that there were not more than three cases of fever as the result. Quinine was administered to each man in four grain doses twice a day, and an extra allowance of spirits to each man, together with tea, when working in the water at night. Great care was taken to muster them with dry clothing, and each man was allowed to purchase a bottle of beer per diem. No drunkenness occurred, and in comparison with other vessels which have been placed in a similar condition, the sickness was very small indeed."

In the Vindictive, a coal depôt, permanently stationed at Fernando Po, there were fifty-two cases of primary fever, the average duration of each case on the sick list being a little over ten days. Two of the cases had a fatal termination; one in the person of a petty officer, the other in a krooman. The ship had only recently arrived at Fernando Po from England, and in the process of converting her into a hulk, the men were very much exposed getting the spars and rigging on shore, working sometimes for hours up to their arms in the water in the intense heat of the sun. Subsequently they were also much exposed in assisting to beach the Lee, for the purpose of repairing her keel. The fever cases which resulted were of considerable severity. No mention is made as to whether quinine was employed as a prophylactic at these or any other times.

There were nineteen cases of primary fever in the Wrangler; one of which proved fatal. This case, however, presented some anomalous characters which lead to the impression that the symptoms were less owing to malarial fever than to long standing organic disease suddenly taking on rapidly fatal action. The man was only three days on the sick list. Unfortunately from the boisterous state of the weather, no post mortem examination of the body could be held.

The Wrangler was frequently employed in pestilential localities, and there can be little doubt that the comparative immunity

immunity from fever enjoyed by her crew was attributable to the prophylactic virtues of quinine, which seems on those occasions to have been regularly administered to them. The medical officer* in his return for the Lady quarter, says, speaking of the River Nunez—

"The boats of the ship were sent away examining the numerous creeks in that river. Three boats were sent up the River Coba, a small river, about a mile to the northward of the Dembia, where we remained the night. Quinine mixed with spirit was administered night and morning, and also after a long pull, if necessary. No cases of fever resulted from the expedition worthy of remark. Slight headache was complained of by a few of the men, but a dose of quinine soon relieved them. The part of the river where the boats were anchored was thickly wooded, mangrove trees grew down to the water's edge, and at low water mud banks were exposed, the width of the river being only about twenty or thirty yards. During the night the dew fell heavily; the men, however, being provided with their blankets and blanket dresses suffered no inconvenience beyond a sense of chilliness, which a dose of quinine soon removed. Being with the boats myself, I had an opportunity of observing the benefit produced by a timely administration of the prophylactic. Every precaution was taken to keep the men as dry as possible, and to prevent their exposure to the miasma arising from the mud in the morning."

In the Michaelmas quarter, in consequence of the existence of a leak in the stern of the ship, and the rudder requiring repair, the vessel was grounded in Kroo Creek at Sierra Leone, and four carpenters and the blacksmith were sent on shore to work upon the rudder, which they did in a low shed at the upper part of the creek, sleeping on shore at night during the time they were employed on this duty. The carpenters had to work at the stern post on the tide falling sufficiently, an employment which was continued day and night when the tides would admit of it, and which kept their lower extremities on these occasions under water. The boats' crews were also much employed in connection with this work. Quinine was daily issued to the ship's company during this period, and only six cases of fever resulted from this exposure, five of these occurring on the persons of the men who slept on shore. The cases were, however, of considerable severity, the average duration of each upon the list but being twenty-four days.

There

* Assistant Surgeon C. F. Williams.

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There were twenty-four cases of primary fever in the Zebra, a very large majority of which were of a mere ephemeral nature. Of the more severe cases one proved fatal.

Eruptive Fevers.—There were two fatal cases of small-pox in the Handy at Lagos, where the disease was prevalent on shore. They occurred in the persons of Kroo boys, amongst whom the disease usually assumes a very virulent form. The surgeon of the vessel says, "The disease most fatal to the Kroo boys and black population generally is variola, which, so far as I can by inquiry ascertain, carries off at the lowest computation about 25 per cent. of those attacked. This mortality is in part accounted for by the severe type of the disease, which usually presents itself in the confluent form, and by the brutal method adopted by the natives for its cure, which is after this manner. On a person being attacked with the disease, he is at once closeted in a hut about eight feet long by six feet six inches high. The windows, if there are any, and the door, are carefully closed, a wood fire is lighted, and the patient is left without any covering, and with only a little cassada root and water for sustenance. The stench from the discharge is intolerable, and there is little wonder that so many fall victims to this disease."

Diseases of the Brain and Nervous System.—In the service afloat there were only two cases of delirium tremens, one occurring in the person of a ward-room officer and the other in a petty officer.

Diseases of the Organs of Respiration.—There is not only a great increase in the ratio of cases of inflammatory disease of these organs, but the death rate is also much in excess of the preceding year. The cases were tolerably equally distributed throughout the squadron. Of the three fatal cases that occurred, two were in the persons of Kroomen, a race that seems ill fitted to resist active disease in any form, and the third in an officer of the Griffon. In this case the constitution of the patient had been completely broken down by long service on the station, and he was unable to contend with the severity of the attack.

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Diseases of the Heart and Blood Vessels.—Aneurism of the thoracic aorta proved fatal in one of the Kroomen of the Zebra. He had for some time previously been excused duty on account of the symptoms under which he laboured, and was only retained on board until an opportunity offered to send him to hospital, or to Sierra Leone. He was frequently examined during life by the stethescope, and aneurism near the diaphragm diagnosed. On the day of his death he was suddenly seized (immediately after eating a hearty dinner) with acute pain in the chest, probably caused by the generation of gas in an overloaded stomach, the distension of which either pressed upon the aorta close to the aneurism, or, by pressing on the diaphragm, upon the aneurism itself. While in the act of vomiting he suddenly expired, probably from the rupture of the sac. In consequence of the Kroomen on board objecting to it, no post-mortem examination of the body was made.

A petty officer of the Rattlesnake died of valvular disease of the heart, in the steam packet, on his way to England. He had been subject to a fluttering sensation in the region of the heart, and to syncope on any severe exertion. He was landed with the naval brigade at Cape Coast Castle, and, while on shore, appears to have lead a most intemperate life, having been placed on the sick list for dyspepsia, the result of excesses, and subsequently having an attack of delirium tremens. At this time, on examining the heart, a prolonged bruit was found with the first sound; there was a jerking pulse, and more than a normal extent of dulness over the cardiac region. Subsequently hæmoptysis set in; dyspnœa in paroxysms became urgent, and dysenteric symptoms supervened, and ultimately carried him off. There appears to have been no post-mortem examination of the body; but all the symptoms lead to the diagnosis of mitral valve incompetency. There was for some time before his death visible pulsation of the jugular veins.

Diseases of the Alimentary Canal.—The ratios of cases of dysentery and diarrhœa are somewhat lower than they were in the preceding year; but as regards the former it is still considerably in excess of the average ratio of the station taken for a period of seven years. The ratios of invaliding and mortality from dysentery are only fractionally in excess of 1862.

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In the Rattlesnake, which shows the largest number of cases of dysentery, the disease was entirely confined to the men who composed the naval brigade employed at Cape Coast Castle. There were seven cases of dysentery in that force, one of which proved fatal. This occurred in the person of a seaman, who, with two others, was detached with the troops for the purpose of managing the rocket firing. They proceeded to Dungnoi, and from thence to the village of Mansoe, about seventy miles from the river Prah, the boundary of the British Protectorate. On their way up they appear to have suffered great privations, their food being poor and insufficient, aud on their arrival at Mansoe they were housed in a damp mud hut, which was, however, as good as the country afforded. They left Cape Coast Castle on the 21st of May, and on the 26th this man was seized with diarrhœa, which soon took on the character of hæmorrhagic dysentery. On the 3rd of June he arrived at Cape Coast Castle on his return, and was then passing blood freely, and without tenesmus. The disease ran rapidly to a fatal termination, and he died on the 9th of June. On post-mortem examination of the body, extensive inflammation and thickening of the cœcum was found, and it was perforated by two ulcers, through which the contents of the bowels had escaped into the abdominal cavity. The ascending colon was thickened, inflamed, and ulcerated, and there was only a little injection of the mucous membrane of the descending colon and sigmoid flexure.

The other two men who accompanied this man to Mansoe returned labouring under ague. The medical officer in charge of the brigade says that dysentery is by no means unfrequent amongst the natives, more particularly the soldiers of the West India regiments. The natives use a fruit in the treatment of this disease known by the name of "ethua," "etua," or monkey head. It belongs to the natural order aurantiacæ, is an aromatic astringent, and is, in his opinion, contra-indicated in the acute stage of the disease. It appears to be like the bael fruit.

The surgeon of the Handy makes the following observations on dysentery as it appears amongst the white population at Lagos—

"Dysentery is, as a rule, less severe here than in most places on the coast, probably from the excellent quality of the water, and from the fact that the people generally in Lagos are remarkably abstemious

abstemious livers. From two to eight weeks is the time the disease usually takes to run its course, the dysenteric symptoms often ceasing for three or four days before death, which appears to result from intense prostration. The most efficacious mode of treatment is to give the whites of five eggs (they are very small) in a little milk and water every morning, and give every two or three hours one-third of a grain of powdered opium, with three grains of powdered ipecacuana. Rice water and rice diet only to be given for several days. When the stools cease to be dysenteric I add quarter of a grain of sulphate of copper to each pill, and give injections composed of one drachm of tincture of opium with three grains of sulphate of copper, in thin arrowroot, cold. Often hardness and pain in the region of the liver indicate the necessity for a calomel and opium treatment, but in the majority of cases I avoid mercurial preparations. Doubtless we should have many more deaths from dysentery, but it is a rule here to go for change to Madeira or some other temperate climate directly the patient can get away. Many old residents on the coast will remain in spite of almost numberless febrile attacks, but rarely disregard a little dysenteric admonition."

In the squadron generally the dysenteric cases, although not very numerous, were of a tedious nature, the average duration of each case on board ship and in hospital being upwards of twenty-four days. Three men were invalided for the disease, and in seven it terminated fatally.

Diseases of the Liver.—There were eleven cases of inflammation of this organ under treatment, but they did not occasion any loss to the service either by invaliding or death. The total days' sickness from all the cases, on board ship and in hospital, gave an average of 25·2 days of treatment to each.

Rheumatism.—There was a very large increase in the ratio of cases of this disease as compared with the preceding year, and there was also a great increase in the loss to the service by invaliding in consequence of it.

Of thirty-one cases that appear in the returns of the Archer ten occurred in the Michaelmas and twenty-one in the Christmas quarter of the year. Of the former cases the medical officer says that they were remarkable chiefly for the tendency the disease had to attack the cranial aponeurosis, a circumstance which he seems to attribute to the evaporation and consequent cold which takes place in consequence

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sequence of that portion of the body being more frequently exposed to cold currents of air when in a state of perspiration. The cases occurring in the Christmas quarter were, he says, attributable, in a great measure, to some very wet weather experienced on the passage from Cape Lopez to the southward. The upper extremities were the parts principally affected.

There were twenty cases of rheumatism in the Philomel, but they do not appear to have been of much severity. They were tolerably equally distributed over the different quarters of the year.

Diseases not classed.—A death occurred in the Zebra, from pyœmia consequent upon caries of the tibia, the result of syphilitic disease. The person in whom it occurred, a marine, presented himself complaining of pain and stiffness of the left leg, and, on examination a circumscribed swelling painful on pressure was found under the knee joint. This swelling rapidly increased in size, and ultimately extended as low as the ankle. To relieve tension and pain a few incisions were made in its upper part, with the effect of reducing the swelling very much, and affording relief generally. Very free suppuration took place from the wounds. On the reduction of the swelling of the limb, the tibia was found to be studded with nodes and the man confessed to having suffered severely at one time from syphilis. Collections of pus formed here and there in the vicinity of the incisions; on introducing the probe into one of which, carious bone could be readily detected. Under the treatment to which he was subjected he appeared to be gradually improving, when his symptoms suddenly, about a month after his being placed on the sick list, assumed a very grave character. He became much altered in appearance, his face was haggard, his pulse small and weak, and his speech wandering. There was very little suppuration at this time from the wounds. The breathing now became hurried, and he appeared from his moving his hand over the upper part of the left side of the chest to be suffering much pain there. Abscesses formed over the occiput, the right lung became affected, and on physical examination rough crepitus was found all over it. He now rapidly sank, death being preceded by slight convulsions. On post mortem examination of the body, the upper part of the tibia for nearly four inches in extent was found to be carious, the knee joint was healthy, but disease had extended to within a few lines of the under surface

surface of the articular cartilages. On passing a probe into the interior of the bone, the cancellous structure was found to be so softened as to be easily broken up. Both lungs were much congested; in the right lung a large abscess, full of pus was found, and the whole lung was studded with purulent depôts. There was also an abscess of considerable size in the left lung. The heart was much enlarged.

Tapeworm was prevalent in some of the vessels of the squadron, and was attributed by most of the medical officers to the habit the men have of eating their pork raw. Various anthelmintics were employed, the results appearing to give the palm to the oil of the male shield fern as a remedy.

The medical officer of the Lee returns twelve cases of what he terms incomplete scurvy. They were in all probability merely varieties of climatic cachexia; as, during the quarter in which they occurred, although only twelve or fourteen days' fresh provisions were issued to them, they had many opportunities of purchasing fowls, fruit and vegetables.

Wounds and Injuries.—Two men were killed in action, and one man sustained a fatal fracture of the skull by falling into the hold of the ship. A petty officer was mortally stabbed in the abdomen while on shore, by a Portuguese soldier; and a seaman while on leave, and labouring under the influence of drink, committed suicide, by cutting his throat.

There were ten deaths by drowning; three by falling overboard, and seven by being capsized in boats in the surf at the River Gallinas and at Lagos. Three of the men drowned at the former place were Kroomen. The total number of deaths was forty-three, twenty-eight being from disease, and fifteen from wounds and injuries of various kinds. The death rate from disease was 14·6, and from wounds and injuries 7·7, making a total of 22·3 per 1,000 of mean force, which is fractionally in excess of the death-rate of the preceding year.

Invalided.—Thirteen men were invalided for the sequelæ of fever; nine for diseases of the brain and nervous system, of whom six were epileptics; seven for consumption; two for asthma; seven for diseases of the organs of circulation; three for dysentery; six for diseases of the genito-urinary organs; six for rheumatism; two for diseases of the bones and joints; five

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five for affections of the special senses; two for abscesses; two for ulcers; eight for dyspepsia and debility; five for wounds and injuries; and three for hernia; making altogether a loss to the service, by invaliding, of eighty men, or in the ratio of 41·4; per 1,000 of mean force, which is nearly double the ratio of invaliding of the previous year.

TABLE, No. 1.

SHOWING the Number of CASES of all DISEASES and INJURIES, and the Number INVALIDED and DEAD, with the Ratio per 1,000 of Mean Force.

DISEASE OR INJURY.	Number of Cases.	Ratio per 1,000 of Mean Force.	Number Invalided.	Ratio per 1,000 of Mean Force.	Number Dead.	Ratio per 1,000 of Mean Force.
Continued and Remittent Fever	703	364·2	11	5·6	9	4·6
Intermittent Fever	214	110·8	2	1·	—	—
Small Pox	2	1·	- -	- -	2	1·
Disease of the Brain	- -	- -	1	·5	—	—
Epilepsy	8	4·1	6	3·1	—	—
Paralysis	1	·5	1	·5	—	—
Insanity	1	·5	1	·5	—	—
Delirium Tremens	2	1·	—	—	—	—
Neuralgia	1	·5	—	—	—	—
Inflammation of the Lungs and Pleura	31	16·	- -	- -	3	1·5
Phthisis and Hæmoptysis	15	7·7	7	3·6	3	1·5
Influenza and Catarrh	210	108·8	—	—	—	—
Cynanche	34	17·6	—	—	—	—
Asthma	1	·5	2	1·	—	—
Functional and Organic Disease of the Heart	32	16·5	5	2·5	2	1·
Hæmorrhoids	19	9·8	2	1·	—	—
Varix	3	1·5	—	—	—	—
Inflammation of the Stomach and Bowels	8	4·1	—	—	—	—
Dysentery	23	11·9	3	1·5	7	3·6
Diarrhœa	196	101·5	—	—	—	—
Constipation and Colic	69	35·7	—	—	—	—
Inflammation of the Liver	11	5·6	—	—	—	—
Inflammation of the Bladder and Kidneys	7	3·6	—	—	—	—
Syphilis	36	18·6	1	·5	—	—
Gonorrhœa	32	16·5	—	—	—	—
Orchitis	35	18·1	2	1·	—	—
Stricture	7	3·6	3	1·5	—	—
Incontinence of Urine, &c.	3	1·5	—	—	—	—

TABLE, No. 1.—Showing the Number of Cases of all Diseases, &c.—*continued.*

DISEASE OR INJURY.	Number of Cases.	Ratio per 1,000 of Mean Force.	Number Invalided.	Ratio per 1,000 of Mean Force.	Number Dead.	Ratio per 1,000 of Mean Force.
Rheumatism	199	103·1	6	3·1	—	—
Gout	6	3·1	—	—	—	—
Disease of the Bones and Joints	22	11·3	2	1·	1	·5
Ophthalmia	23	11·9	—	—	—	—
Amaurosis and Cataract	9	4·6	4	2·	—	—
Otitis and Deafness	4	2·	1	·5	—	—
Erysipelas	9	4·6	—	—	—	—
Scrofula	3	1·5	—	—	—	—
Bubo (*Symp.*)	21	10·8	—	—	—	—
Phlegmon and Abscess	642	332·6	2	1·	—	—
Ulcer	212	109·8	2	1·	—	—
Psora	3	1·5	—	—	—	—
Eruptions, &c.	67	34·7	—	—	—	—
Dyspepsia and Debility	193	100·	8	4·1	—	—
Scurvy	15	7·7	—	—	—	—
Dropsy	6	3·1	-	-	1	·5
Worms	7	3·6	—	—	—	—
Headache, &c.	19	9·8	—	—	—	—
Wounds and Injuries	622	322·2	5	2·5	3	1·5
Burns and Scalds	36	18·6	—	—	—	—
Hernia	5	2·5	3	1·5	—	—
Drowned	-	-	-	-	10	5·1
Poison	3	1·5	—	—	—	—
Murdered	-	-	-	-	1	·5
Suicide	-	-	-	-	1	·5
TOTAL	3,830	1984·4	80	41·4	43	22·3

TABLE, No. 2.

SHOWING the Number of DAYS' SICKNESS from each DISEASE, and from INJURIES, the Average Number of Men Sick Daily, with the Ratio per 1,000 of Mean Force.

DISEASE OR INJURY.	Number of Days' Sickness on Board.	Number of Days' Sickness in Hospital.	Total Number of Days' Sickness.	Average Number of Men Sick Daily.	Ratio per 1,000 of Mean Force.
Continued and Remittent Fever	7,502	605	8,107	22·2	11·5
Intermittent Fever	1,561	88	1,649	4·5	2·3
Small Pox	13	-	13	—	—
Disease of the Brain	-	10	10	—	—
Apoplexy	-	146	146	·4	·2
Epilepsy	73	-	73	·2	·1
Paralysis	72	17	89	·2	·1
Insanity	25	-	25	—	—
Delirium Tremens	16	-	16	—	—
Neuralgia	5	-	5	—	—
Inflammation of the Lungs and Pleura	477	171	648	1·7	·8
Phthisis and Hæmoptysis	401	198	599	1·6	·8
Influenza and Catarrh	1,133	11	1,144	3·1	1·6
Cynanche	196	-	196	·5	·2
Asthma	4	-	4	—	—
Functional and Organic Disease of the Heart	942	271	1,213	3·3	1·7
Hæmorrhoids	134	17	151	·4	·2
Varix	128	194	322	·8	·4
Inflammation of the Stomach and Bowels	70	-	70	·1	—
Dysentery	360	200	560	1·5	·7
Diarrhœa	1,000	38	1,038	2·8	1·4
Constipation and Colic	273	-	273	·7	·3
Inflammation of the Liver	236	41	277	·7	·3

TABLE, No. 2.—Showing the Number of Days' Sickness from each Disease, &c.—*cont^d.*

DISEASE OR INJURY.	Number of Days' Sickness on Board.	Number of Days' Sickness in Hospital.	Total Number of Days' Sickness.	Average Number of Men Sick Daily.	Ratio per 1,000 of Mean Force.
Inflammation of the Bladder and Kidneys	47	-	47	·1	—
Syphilis	914	365	1,279	3·5	1·8
Gonorrhœa	554	-	554	1·5	·7
Orchitis	607	171	778	2·1	1·
Stricture	144	133	277	·7	·3
Rheumatism	2,289	727	3,016	8·2	4·2
Gout	90	-	90	·2	·1
Disease of the Bones and Joints	427	142	569	1·5	·8
Ophthalmia	198	-	198	·5	·2
Amaurosis and Cataract	77	66	143	·3	·1
Otitis and Deafness	40	321	361	·9	·4
Erysipelas	54	5	59	·1	—
Scrofula	52	19	71	·1	—
Bubo (*Symp.*)	266	12	278	·7	·3
Phlegmon and Abscess	5,115	71	5,186	14·2	7·3
Ulcer	3,503	358	3,861	10·5	5·4
Psora	31	-	31	—	—
Eruptions, &c.	742	90	832	2·2	1·1
Dyspepsia and Debility	955	896	1,851	5·	2·5
Scurvy	28	28	56	·1	—
Dropsy	47	32	79	·2	·1
Worms	36	-	36	—	—
Headache, &c.	94	39	133	·3	·1
Wounds and Injuries	5,715	1,004	6,719	18·4	9·5
Burns and Scalds	360	56	416	1·1	·5
Hernia	84	5	89	·2	·1
Poison	4	-	4	—	—
TOTAL	36,994	6,647	43,641	119·5	61·8

Table, No. 3.

Showing the Number Invalided from each Ship employed on the West Coast of Africa Station.

CAUSE of INVALIDING.	Antelope.	Archer.	Bloodhound.	Dart.	Espoir.	Handy.	Isis.	Jaseur.	Lee.	Mæander.	Mullet.	Pandora.	Philomel.	Rattlesnake.	Sparrow.	Vindictive.	Zebra.	Total.
Continued and Remittent Fever	2	2	–	1	–	–	–	–	–	–	3	–	2	1	–	–	–	11
Intermittent Fever	–	1	–	–	–	–	–	–	1	–	–	–	–	–	–	–	–	2
Meningitis	–	–	–	–	–	–	–	–	–	–	–	–	–	1	–	–	–	1
Epilepsy	–	1	–	–	–	–	–	–	–	–	–	–	–	2	1	–	2	6
Insanity	–	–	–	–	–	–	–	–	–	–	1	–	–	–	–	–	–	1
Paralysis	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	1	1
Phthisis	–	1	–	–	–	–	1	–	1	2	–	–	–	1	–	–	1	7
Asthma	–	–	–	1	–	–	–	–	–	–	–	–	–	1	–	–	–	2
Disease of the Heart	–	1	–	1	–	–	–	1	–	1	–	–	–	1	–	–	–	5
Hæmorrhoids	–	–	–	–	–	–	–	–	1	1	–	–	–	–	–	–	–	2
Dysentery	–	–	–	–	–	–	–	–	–	1	–	–	–	2	–	–	–	3
Syphilis	–	1	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	1
Orchitis	–	–	–	–	–	–	–	–	–	–	2	–	–	–	–	–	–	2
Stricture	1	–	1	–	–	–	–	–	1	–	–	–	–	–	–	–	–	3
Rheumatism	1	–	–	–	–	–	–	–	–	–	–	1	–	1	–	–	3	6
Disease of the Bones	1	–	–	–	–	–	–	–	–	–	–	–	–	1	–	–	–	2
Amaurosis	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	2	2
Hemeralopia	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	1	1
Nyctalopia	–	1	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	1
Otorrhœa	–	–	–	–	–	–	–	–	–	–	–	–	–	1	–	–	–	1
Abscess	–	–	–	1	–	–	–	–	–	–	–	–	–	1	–	–	–	2
Ulcer	–	–	–	–	–	–	–	–	–	1	–	–	–	–	–	1	–	2
Dyspepsia and Debility	2	1	–	1	–	1	–	–	–	1	–	–	–	2	–	–	–	8
Wounds and Injuries	–	–	–	–	1	–	–	–	–	–	–	–	–	3	–	1	–	5
Hernia	–	1	–	–	–	–	–	–	–	–	1	–	–	–	–	–	1	3
Total	7	10	1	5	1	1	1	1	4	7	7	1	2	18	1	2	11	80

TABLE, No. 4.

SHOWING the Number of DEATHS in each Ship employed on the WEST COAST OF AFRICA STATION.

CAUSE of DEATH.	Archer.	Brisk.	Espoir.	Griffon.	Handy.	Investigator.	Lee.	Meander.	Mullet.	Pandora.	Rattlesnake.	Sparrow.	Vindictive.	Wrangler.	Zebra.	TOTAL.
Continued and Remittent Fever	–	–	–	–	1	–	1	–	–	1	2	–	2	1	1	9
Small Pox	–	–	–	–	2	–	–	–	–	–	–	–	–	–	–	2
Inflammation of the Lungs and Pleura	1	1	–	1	–	–	–	–	–	–	–	–	–	–	–	3
Phthisis	1	–	–	–	–	–	–	1	1	–	–	–	–	–	–	3
Disease of the Heart	–	–	–	–	–	–	–	–	–	–	1	–	–	–	–	1
Aneurism of the Aorta	–	–	–	–	–	–	–	–	–	–	–	–	–	–	1	1
Dysentery	–	–	1	–	1	–	–	2	1	–	2	–	–	–	–	7
Caries and Pyæmia	–	–	–	–	–	–	–	–	–	–	–	–	–	–	1	1
Ascites	–	–	–	–	–	–	–	1	–	–	–	–	–	–	–	1
Killed in Action	–	–	–	–	–	2	–	–	–	–	–	–	–	–	–	2
Fracture of the Skull by falling into the hold	–	–	–	–	–	–	–	–	–	–	1	–	–	–	–	1
Stabbed when on Shore	–	–	–	1	–	–	–	–	–	–	–	–	–	–	–	1
Suicide by Cutting his Throat	–	–	–	–	–	–	–	–	–	–	–	–	–	–	1	1
Drowned	–	1	–	1	–	1	–	–	–	–	2	5	–	–	–	10
TOTAL	2	2	1	3	4	3	1	4	2	1	8	5	2	1	4	43

Table, No. 5.

Showing the Names of the Ships; the Average Complement and the Mean Force; the Number of Cases; the Number of Days' Sickness on Board; and the Average Number of Men Daily Sick in each Ship.

C. Commissioned. P. O. Paid off. D. Defective Returns.

Rate.	NAME of SHIP.	Where Commissioned.	When Commissioned.	Number of Guns.	Tonnage.	Horse Power.	Period.	Average Complement.	Average Complement corrected for Time.	Number of Cases.	Number of Days' Sickness on Board.	Average Number of Men Daily Sick.	Ratio per 1,000 of Mean Force of each Ship.	Number discharged to Hospital.
Sixth Rate -	Rattlesnake - -	Devonport -	20 Aug. 1862	19	1,705	Sc. 400	Year - -	335	335	506	5,337	14·6	43·5	31
	Archer - - C.	Woolwich -	30 Mar. 1863	13	973	Sc. 202	1 July to 31 Dec.	250	125	307	2,727	7·4	59·2	5
	Brisk - - P. O.	Devonport -	7 May 1859	16	1,087	Sc. 250	1 Jan. to 22 Aug.	225	150	153	1,598	4·3	28·6	1
Sloop - -	Zebra - - -	Sheerness -	5 April 1862	17	951	Sc. 200	Year - -	195	195	267	2,475	6·7	34·3	10
Gun Vessels -	Dart - - -	Portsmouth	11 Mar. 1862	5	428	Sc. 80	Year- - -	75	75	208	2,408	6·5	86·6	15
	Espoir - - -	Devonport -	21 Aug. 1860	5	428	Sc. 80	Year - -	75	75	120	1,038	2·8	37·3	2
	Griffon - - -	Sheerness -	29 June 1861	5	425	Sc. 80	Year - -	65	65	233	2,108	5·7	87·6	1
	Jaseur - C.	Sheerness -	8 April 1863	5	425	Sc. 80	1 July to 31 Dec.	80	40	74	802	2·1	52·5	2
	Lee - - -	Devonport -	19 Mar. 1862	5	431	Sc. 80	Year - -	65	65	251	2,409	6·5	100·	5
	Mullet - - -	Sheerness -	22 Mar. 1862	5	430	Sc. 80	Year - -	65	65	130	1,134	3·1	47·6	9
	Pandora - C.	Portsmouth	20 Mar. 1863	5	426	Sc. 80	1 July to 31 Dec.	80	40	49	755	2·	50·	2
	Philomel - -	Portsmouth	24 Dec. 1860	5	428	Sc. 80	Year - -	65	65	207	1,072	2·9	44·6	9
	Ranger P. O.	Woolwich -	18 April 1860	5	427	Sc. 80	1 Jan. to 10 Nov.	70	60	141	1,223	3·3	55·	3
	Sparrow - C.	Devonport -	23 Mar. 1863	5	430	Sc. 80	1 July to 31 Dec.	75	35	116	1,252	3·4	97·1	1
	Torch - - -	Chatham -	18 June 1860	5	428	Sc. 80	Year - -	70	70	134	1,250	3·4	48·5	1
	Wrangler P. O.	Sheerness -	9 April 1860	5	477	Sc. 80	1 Jan. to 21 Sept.	90	65	164	1,507	4·1	63·	5
Steam Vessels -	Antelope - D.	Woolwich -	6 Aug. 1861	5	650	Pw. 650	14 Feb. to 31 Dec.	85	80	94	1,066	2·9	36·2	6
	Bloodhound P. O.	Woolwich -	19 June 1860	3	378	Pw. 150	1 Jan. to 15 Sept.	60	40	91	636	1·7	42·5	1
	Investigator - -	Woolwich -	Dec. 1861	2	149	Pw. 34	Year - -	30	25	146	796	2·1	84·	4
Gun Boat -	Handy - -	Portsmouth	- - -	2	235	Sc. 60	Year - -	50	50	97	549	1·5	30·	4
Store Ships -	Isis - - D.	Chatham -	Feb. 1861	2	1,321	–	1 Apr. to 31 Dec.	30	25	22	538	1·4	56·	–
	Mæander - -	Ascension -	21 Jan. 1860	10	1,221	–	Year - -	125	125	208	1,883	5·1	40·8	7
	Vindictive - -	Portsmouth	24 July 1862	2	1,758	–	Year - -	60	60	112	1,240	3·3	55·	15

TABLE, No. 6. - - - - - - - -

SHOWING the Number of Cases of all DISEASES and INJURIES in each - -

DISEASE OR INJURY.	Antelope.	Archer.	Bloodhound.	Brisk.	Dart.	Espoir.	Griffon.	Handy.	Investigator.
Continued and Remittent Fever - -	8	14	11	18	38	–	57	41	53
Intermittent Fever - - - -	1	–	4	12	3	5	47	17	40
Small Pox - - - - - -	–	–	–	–	–	–	–	2	–
Epilepsy - - - - - -	–	1	–	–	–	–	–	–	–
Insanity - - - - - -	–	–	–	–	–	–	–	–	–
Delirium Tremens - - - -	–	–	–	–	–	–	–	–	–
Paralysis - - - - - -	–	–	–	–	–	–	–	–	–
Neuralgia - - - - - -	–	–	–	–	–	–	1	–	–
Inflammation of the Lungs and Pleura -	–	1	2	2	1	1	3	–	–
Phthisis and Hæmoptysis - - -	–	2	–	1	2	–	–	–	–
Catarrh - - - - - - -	7	49	8	11	3	9	2	2	2
Cynanche - - - - - - -	1	1	–	3	5	1	1	–	–
Asthma - - - - - - -	–	–	–	–	–	–	–	–	–
Functional and Organic Disease of the Heart - - - - - -	2	2	1	–	6	–	2	–	–
Hæmorrhoids - - - - - -	–	1	–	5	–	–	1	–	–
Varix - - - - - - -	–	–	–	–	2	1	–	–	–
Inflammation of the Stomach and Bowels	–	4	1	–	–	–	–	–	–
Dysentery - - - - - - -	–	1	–	1	–	1	5	–	3
Diarrhœa - - - - - - -	4	11	8	14	13	1	–	7	4
Constipation and Colic - - -	5	1	1	6	4	2	2	–	2
Inflammation of the Liver - - -	–	2	–	–	–	1	–	–	–
Inflammation of the Kidneys and Bladder	–	–	–	2	–	–	–	–	1
Syphilis - - - - - - -	2	–	–	3	2	–	1	5	–
Gonorrhœa - - - - - -	–	–	–	–	6	–	8	2	1
Orchitis - - - - - - -	–	1	1	–	4	3	3	1	4
Hydrocele - - - - - - -	–	–	–	–	–	–	–	1	–
Stricture - - - - - - -	–	–	–	–	1	–	1	–	–
Incontinence of Urine, &c. - - -	–	3	–	–	–	–	–	–	–
Rheumatism - - - - - -	3	31	2	9	11	8	6	2	4
Gout - - - - - - - -	–	–	–	–	6	–	–	–	–
Disease of the Bones and Joints - -	1	1	–	–	4	–	2	1	–
Inflammation of the Eyes - - -	1	2	2	1	1	–	–	1	–
Amaurosis and Cataract - - -	–	*b*1	–	–	1	–	–	–	–
Otitis and Deafness - - - -	–	–	–	–	–	–	–	–	–
Erysipelas - - - - - - -	–	1	–	–	1	–	1	–	1
Scrofula - - - - - - -	–	1	–	1	1	–	–	–	–
Bubo (*Symp.*) - - - - -	1	1	1	1	2	1	3	–	–
Phlegmon and Abscess - - -	20	93	13	20	19	22	44	2	*d*6
Ulcer - - - - - - - -	8	6	10	2	8	13	11	–	–
Psora - - - - - - - -	–	1	–	1	–	–	–	–	–
Eruptions, &c. - - - - - -	–	3	1	1	6	–	7	2	1
Dyspepsia and Debility - - -	7	18	2	7	10	8	10	3	12
Headache, &c. - - - - - -	3	–	–	–	11	–	–	–	–
Dropsy - - - - - - - -	–	–	–	–	–	–	–	–	–
Worms - - - - - - - -	–	–	–	–	1	–	–	–	–
Scurvy - - - - - - - -	–	1	–	–	–	2	–	–	–
Poison - - - - - - - -	–	–	–	–	–	–	–	–	–
Wounds and Injuries - - - -	17	50	23	32	35	39	14	7	12
Burns and Scalds - - - - -	3	2	–	–	1	2	–	1	–
Hernia - - - - - - - -	–	1	–	–	–	–	1	–	–
TOTAL - - -	94	307	91	153	208	120	233	97	146

a 1 Hæmaturia. *b* Nyctalopia. *c* Hæmeralopia. *d* 1 Anthrax.

TABLE, No. 6.

Ship Employed on the WEST COAST OF AFRICA STATION.

Isis.	Jaseur.	Lee.	Mæander.	Mullet.	Pandora.	Philomel.	Ranger.	Rattlesnake.	Sparrow.	Torch.	Vindictive.	Wrangler.	Zebra.	TOTAL.
7	3	47	8	27	9	50	19	104	37	57	52	19	24	703
–	2	21	4	2	–	11	5	27	2	–	1	5	5	214
–	–	–	–	–	–	–	–	–	–	–	–	–	–	2
–	–	–	–	–	–	1	–	3	–	–	–	–	3	8
–	–	–	–	–	–	–	–	1	–	–	–	–	–	1
–	–	–	–	1	–	–	–	1	–	–	–	–	–	2
–	–	–	–	–	–	–	–	–	–	–	–	–	1	1
1	1	3	4	–	1	2	1	–	–	–	2	–	6	31
–	1	5	–	2	–	–	–	1	–	–	–	–	1	15
1	4	10	11	12	3	5	8	13	24	–	7	10	9	210
1	1	1	2	1	–	3	–	2	–	–	–	5	6	34
–	–	–	–	–	–	–	–	1	–	–	–	–	–	1
–	1	5	–	–	–	2	–	1	3	3	1	–	3	32
–	–	1	3	–	–	–	–	4	–	4	–	–	–	19
–	–	–	–	–	–	–	–	–	–	–	–	–	–	3
–	–	–	–	–	–	3	–	–	–	–	–	–	–	8
–	–	–	–	1	–	1	–	7	–	1	–	2	–	23
–	2	7	8	9	1	6	13	23	1	6	2	4	52	196
–	1	1	3	2	1	9	–	9	2	–	–	16	2	69
–	1	–	1	3	–	1	–	2	–	–	–	–	–	11
–	–	*a*2	–	–	–	1	–	–	–	*a*1	–	–	–	7
1	1	1	2	–	2	–	–	8	1	1	–	4	2	36
1	–	2	–	1	–	1	–	1	–	1	–	7	1	32
1	–	4	3	1	–	–	–	1	3	2	–	3	–	35
–	–	–	3	–	–	–	–	–	–	–	–	–	–	4
–	–	3	–	–	–	–	2	–	–	–	–	–	–	7
–	–	–	–	–	–	–	–	–	–	–	–	–	–	3
–	10	8	11	7	3	20	6	14	1	9	5	14	15	199
–	–	–	–	–	–	–	–	–	–	–	–	–	–	*6
–	1	1	–	–	–	3	–	7	–	–	–	–	1	22
–	–	2	1	1	–	–	2	2	3	3	1	–	–	23
–	1	–	1	–	–	–	2	–	–	–	–	–	*c*3	9
–	1	–	–	–	–	–	–	1	2	–	–	–	–	4
–	–	5	–	–	–	–	–	–	–	–	–	–	–	9
–	–	–	–	–	–	–	–	–	–	–	–	–	–	3
1	1	–	1	–	–	1	–	2	–	–	–	3	2	21
4	15	33	54	13	17	36	13	*e*60	19	13	17	24	85	642
1	4	12	27	14	1	1	14	48	4	3	9	5	11	212
–	–	1	–	–	–	–	–	–	–	–	–	–	–	3
–	1	1	2	8	–	4	15	*f*6	1	5	–	–	3	67
–	5	5	9	1	1	13	7	58	1	4	3	9	–	193
–	2	–	–	1	–	1	–	–	–	–	–	1	–	19
–	–	–	–	*g*1	–	–	*g*1	–	–	–	–	–	–	2
–	–	–	–	1	*h*1	*h*3	–	*h*1	–	–	–	–	–	7
–	–	12	–	–	–	–	–	–	–	–	–	–	–	15
–	–	–	–	–	–	–	–	3	–	–	–	–	–	3
3	11	57	49	17	7	29	31	88	12	19	11	29	30	622
–	4	–	1	3	2	–	2	7	–	2	1	4	1	36
–	–	1	–	1	–	–	–	–	–	–	–	–	1	5
22	74	251	208	130	49	207	141	510	116	134	112	164	267	3,830

e Anthrax. *f* Polypus nasi. *g* Œdema. *h* Tœnia.

CAPE OF GOOD HOPE STATION.

Cape of Good Hope Station.

THE squadron on this station in 1863 consisted of eight vessels, of which one was a frigate of the fourth-rate; two were frigates of the sixth-rate; three were sloops; one was a gun-vessel; and there was a stationary receiving ship in Simon's Bay. The mean force corrected for time was 1,350 men. Five of the vessels were on the station during the whole year, and the returns for the others were for periods of between five and six months. The total number of cases of all kinds under treatment was 2,576, of which fifty-two were invalided, and twenty-two terminated fatally. The ratio of invaliding was 38·5 per 1,000 of mean force, and of mortality, 16·2. This is an increase in the ratio of invaliding as compared with the preceding year; but the decrease in the death-rate is nearly one-third. Of the vessels that were on the station during the whole year, the smallest sick-rate is shown by the Gorgon, and the largest by the Ariel.

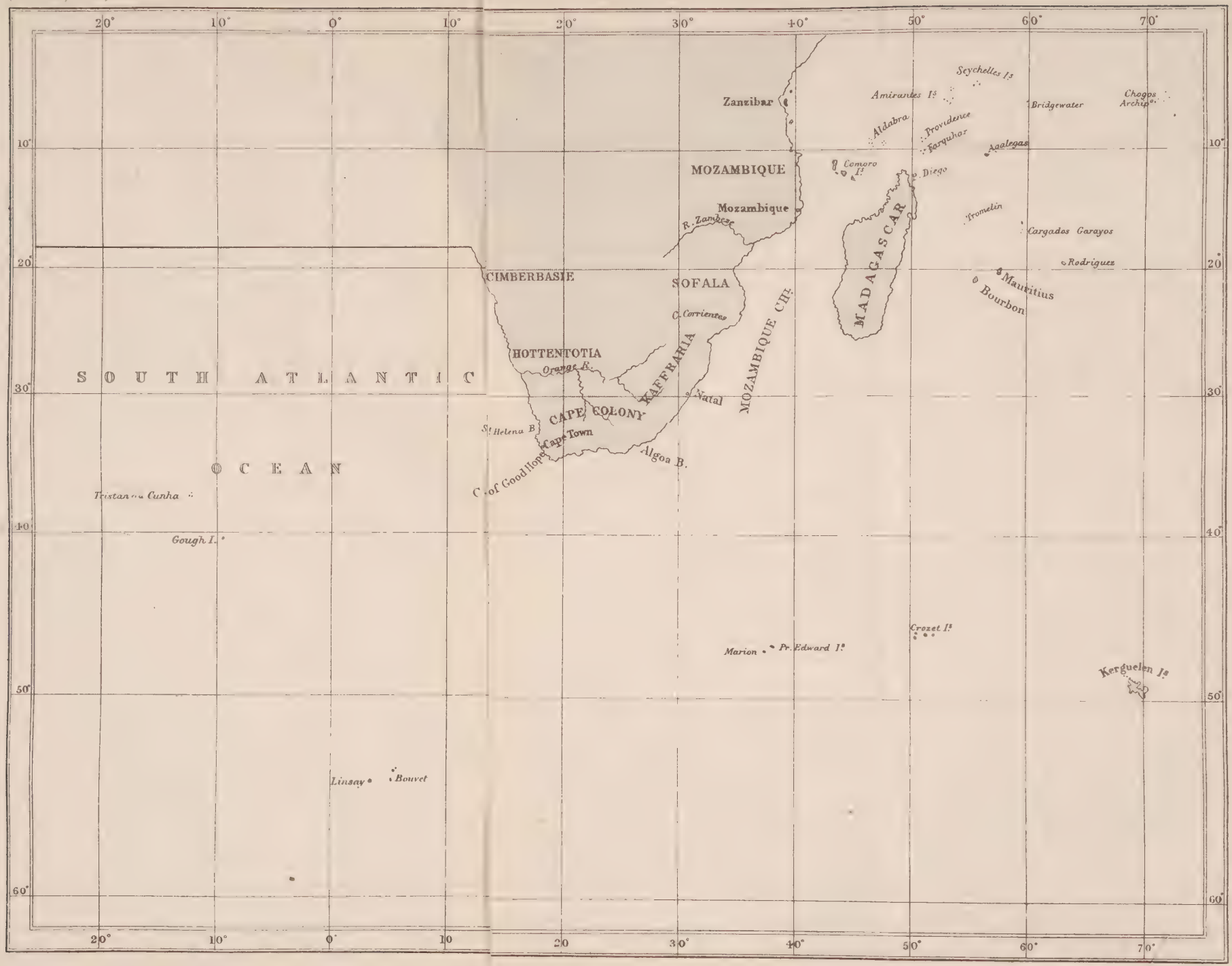
The daily loss of service from fever was in the ratio of 4·3 per 1,000 of mean force; from diseases of the brain and nervous system, ·7; of the respiratory organs, 7·1; of the heart and blood vessels, 1·3, of the alimentary canal, 4·5; of the genito-urinary organs, 13·3, of which 10· was due to syphilis alone; the daily loss of service from rheumatism was in the ratio of 6·5 per 1,000; of diseases of the bones and joints, ·2; of the special senses, ·5; of the skin and cellular tissue, 19 5; from diseases not classed, 2·7; and from wounds and injuries of various kinds, 14·7; making a total daily sick-rate of 79· per 1,000, which is a decrease of 18·3 per 1,000, as compared with the preceding year.

Fevers.—The ratio per 1,000 of mean force of cases of primary fever is precisely one-half of what obtained in the previous year. One hundred and forty-two cases altogether were under treatment, two of which terminated fatally.

There

(To face p.182.)

CAPE OF GOOD HOPE STATION.



Cape of Good Hope Station.

There were thirty-eight cases of primary fever in the Ariel, almost all of which were referable to service in the Mozambique Channel. Of these, one proved fatal in the person of a seaman who had been wrecked in a prize Dhow on the 16th of January, off the Coast of Madagascar. The survivors managed to rejoin the Ariel on the 29th of January, when this man was entered on the sick list with fever. From the first, the symptoms were unfavourable; there was intense headache with swollen face, and great heat of skin. The teeth became coated with sordes, emaciation rapidly took place, the skin assumed a dusky hue, the body was covered with petechiæ, and the sensorium was much affected. Four days before his death there was a slight tendency to rally, but he ultimately sank about the end of the third week. The surgeon* of the Ariel says that this was the most severe case of Madagascar fever that he had met with, and that he was informed by the surgeon of the hospital connected with the French mission at Zanzibar, who had resided eighteen months at Tamatave, that every case of Madagascar fever he had seen, was fatal, when accompanied with petechiæ. There were no points of interest in the generality of the cases that appeared in this vessel. The average duration of each case on the sick-list was about ten days.

There were seventeen cases of primary fever in the Narcissus, but they were not attributable to exposure on any part of the Cape Station. This vessel being the flag-ship, and the West Coast of Africa being in 1863 attached to the Cape Station, she was occasionally employed conveying the Commander in Chief round that part of his command; and it was following one of these occasions, that these cases of fever presented themselves. A few of them were of a tedious nature, and one proved fatal. This occurred in the person of a marine, and was somewhat peculiar, being indeed apparently more a case of death from extreme reflex nervous excitability dependent upon the presence of a worm in a small inflamed portion of the intestinal canal, than from any specific fever. The man presented himself, complaining of pain across the epigastrum, and of indigestion, from which he had suffered more or less during the previous two days. He presented all the appearance of a person in the cold stage of remittent fever; the skin was clammy, and bedewed with a cold perspiration. The pulse was weak, and he

* Dr. Woodifield.

Cape of Good Hope Station.

he nearly fainted when he was first seen. The tongue was clean and red, the bowels were open, and he had no pain anywhere. He was much relieved by the treatment to which he was subjected at the time, but on the following morning there was a return of the chilliness, with pain or soreness chiefly referred to the splenic region. He now vomited food or even fluids immediately they were taken. The tongue continued clean, the pulse 70. There was a curious, anxious, pinched expression of countenance. No pain was complained of when pressure was applied over the abdomen, but it appeared to make him sick and uneasy. That evening he evinced a rapid tendency to delirium, the vomiting still continuing. From this time he continued incoherent, but was occasionally rational when spoken to. On the following night he had a violent epileptic fit, during which he frothed at the mouth, and the tongue was lacerated by the teeth, some of which were broken by the violent grinding. After this, although he rallied sufficiently to be conscious of pain, he was insensible to questions, and to surrounding objects. A few hours afterwards, he was seized with another fit, during which he expired. The following report of the post-mortem examination of the body, and comments on this interesting case, are by the surgeon* of the Narcissus :—

"*Body*, well formed, not emaciated.

"*Abdomen.* No peritonitis whatever. The whole of the large intestine unusually light-coloured ; healthy. The whole of the intestinal canal free from fæces. An ascaris (ascaris lumbricoides) coiled up near the jejunal extremity of the ileum. With the exception of the duodenum and lower part of the ileum, the small intestines were dark-coloured and congested ; congested apparently as regards the vessels of the submucous coat ; portions of the intestine were quite livid and contracted ; the remainder showed zebra-striped markings. On examining a portion of the most discoloured part, blood and apparently puriform matter appeared on its mucous surface, but this membrane itself was shining and free from ulceration. The ascaris was found in one of these most highly coloured portions. The stomach appeared normal, as were the liver, spleen, and pancreas ; the gall bladder was empty ; the kidneys were much congested.

"*Head.* The brain was very carefully examined, and found unusually firm and healthy. There was very little serum in the ventricles.

"In this case I consider that death was the effect of reflex action occasioned by the accidental presence of an ascaris in an inflamed portion

* Dr. Cotton.

portion of intestine. The case presents a few points of importance which demand notice. The difficulty of diagnosing between obscure cases of cerebral mischief and equally ill-defined gastro-enteritis is well known. In the present instance it may be mentioned that of three medical men on board, two, who had seen considerable hospital practice at home where the former is not uncommon, considered this case as so originating. My own opinion was in favour of gastro-enteritis, probably from previous service in climates and positions where abdominal affections are most prevalent; but it was based chiefly upon the indescribable expression of the patient, and the firmness and regularity of his pulse. I have no hesitation, however, in stating that when convulsions unexpectedly occurred, my belief was that the other opinion was the correct one, and that the gastric symptoms were merely sympathetic. . . . . The most interesting point in this curious case is to establish the relation which may be supposed to exist between the parasite found in the small intestines and the inflamed state of the latter. The long round worm, ascaris lumbricoides, is very prevalent in the public service in China, and the first intimation a patient usually has of its existence is finding it in the mouth or back of the pharynx. Out of the many hundreds thus brought under my notice, I have never been able to associate any symptom of disease with the presence of this disgusting entozoon, and have always believed it, *per se*, nearly harmless, and that like other parasites its frequency was greatly determined by the presence of the diseased secretions on which it fed. In the adult, sympathetic head affections from this cause must be excessively rare. In the present instance if the epileptic paroxysm was thus occasioned, it was probably owing to the accidental presence of the worm in the inflamed intestine, acting upon nerves whose function was in an exalted state, as all others are elsewhere in the first stage of the so-called inflammatory process."

In the Orestes there were thirty-seven cases of primary fever; of these, fifteen are returned as cases of continued fever; six, remittent fever; fourteen, ephemeral fever; and two, cachexia, following fever. Each of the cases of continued fever averaged between nine and ten days on the sick list; the remittent cases, about twenty-four days; the ephemeral cases, one or two days; and the cases of cachexia, seventy-four days, on board ship, but one of them was discharged to hospital. The Orestes was much employed in the Mozambique channel, cruizing for the suppression of the slave trade, and her boats were consequently frequently absent from the ship, cruizing in shore. It was chiefly in connection with this service that these cases occurred. Those classed as continued fever, were of a simple nature, dependent, for the most part, on insolation, and constipation of the bowels; the cachectic cases followed remittent fever, contracted at Zanzibar, in the previous year. Quinine was regularly administered

Cape of Good Hope Station.

tered to the boats' crews when they were in-shore, or among the islands.

There were only four cases of primary fever in the Penguin, the average duration of each, on the sick list, being about seventeen days.

All the cases of primary fever in the Rapid, forty-three in number, were of an ephemeral nature. The boats of this vessel were frequently on detached service, and the immunity from malarial fevers, which they enjoyed, is, with justice, attributed by the surgeon* to the care that was taken of the men, and to the regularity with which quinine was always, when deemed necessary, administered. He says, "we anchored, on a few occasions, close to the coast; but I did not remark that the near vicinity of the land had any influence whatever on the health of the crew. Indeed, we enjoyed a remarkable immunity from diseases that might be expected to lurk in many low swampy localities visited by our boats and ship. Quinine in wine was administered freely; no boat was ever allowed to leave the ship without an ample allowance for the time it was likely to be absent. One dose was invariably given every morning, and if in a suspicious neighbourhood, it was repeated at night. Every care was taken of the men, and on their return from any expedition, they were examined and carefully watched afterwards."

The cases in the Valorous were very few and trifling in character.

Intermittent Fever.—One hundred and three cases of ague appear in the returns of the squadron; and of these, fifty-six are from the Gorgon. A very large proportion of these cases were attributable to the exposure to which the men of that vessel were subjected during the previous year in the expedition up the Zambesi, a report of which is fully given in the Statistical Report of the Health of the Navy for 1862. Respecting twenty cases of this form of fever occurring in the Lady quarter of the year, the medical officer† has the following observations:—

"The crew have been remarkably healthy. There have been twenty cases of intermittent fever, but these were slight, and nearly all relapses of intermittent fever contracted up the Zambesi in March 1862. Indeed, nothing seems to throw more light on the etiology of

* Surgeon D. G. Pendrith.
† Assistant Surgeon C. P. Mulvany, M. A.

of fever, on this coast, than such a contrast as the boat expedition up the Zambesi of fifty men, every one of whom suffered from the effects of a poison (not yet extinct), and the repeated expeditions in boats along the coast in the present quarter. From the latter, no trace of miasmatic poisoning appears to have resulted."

Elsewhere he says:—

"The crews of the boats detached for cruizing along the coast have returned after periods of absence varying from a fortnight to a month. Several mild cases of catarrh, and some of diarrhœa have resulted, the latter apparently caused by the change of mode of life and of diet. There have also been some cases of ulcer, resulting from the exposure, and want of careful dressing to trifling sores, but no serious cases have in any instance occurred. Both the officers and men say that they never felt in better health than while away in the boats. Nor is this result of our experience at all at variance with the accounts of the deleterious effects of boating service given by writers treating on the nosology of the West Coast of Africa; for the Gorgon's boats in these, and in all the previous expeditions on the sea coast, have been able to land almost daily to procure water, fowls, yams, fruit, &c. from the native villages, where (except among the Arabs, and Moslem black mongrel Arab tribes), the people are friendly. Palm-wine mentioned by West Coast writers is unknown, and rivers, and swampy inlets of the sea, where the mangrove gives warning of danger, have been avoided as night anchorages. On all these points strict orders have been given to officers in charge of boats, by the commander; as also that each man shall take a glass of quinine wine night and morning."

Diseases of the Organs of Respiration.—Although the ratio of cases of all diseases coming under this head is considerably below that of the preceding year, the loss to the Service by invaliding and death is much greater. With one exception, however, and that a case of phthisis, all the mortality occurred in the persons of Kroomen, a race exceedingly prone to lung disease, especially in the more inflammatory forms.

An epidemic of catarrh appeared in the Orestes, in the Christmas quarter of the year, when that vessel was cruising off the Kongoni mouth of the Zambesi river. The surgeon* says:—

"Between Pomoney and Kongoni an epidemic of catarrh prevailed on board the ship, attacking all hands indiscriminately—officers and men, idlers, stokers, marines, seamen and Kroomen being equally affected. With very few exceptions these cases were accompanied with much fever, constipation and headache, with a heavily

* Surgeon Playfair.

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heavily furred tongue and yellowish conjunctiva; in a very few there was cough. Quinine was required in nearly every case, after regulating the bowels. The Kroomen suffered most severely; several cases of intermittent fever were also added. It did not subside entirely till we left the Kongoni and began to proceed north again. There was no marked change in the weather to account for it; the daily range of the thermometer was very limited, 75° to 81° being the extremes on deck in the shade; the air was rather dry than moist."

About the same time the Ariel, which was lying at Zanzibar, had a similar visitation of catarrhal fever, which although only incapacitating a few men for duty, appears to have affected more or less nearly the whole ship's company. The surgeon* says—

"While at Zanzibar, between the 31st of October and the 19th of November, a few cases of catarrh presented themselves. Coryza and gravedo were the prominent symptoms; but gradually there arose a varying degree of fever. In some instances the fever was the first cause of disability, and the catarrhal symptoms—gravedo, coryza, cough and dyspnœa, or constriction of the chest—were a subsequent accession. Indeed there was a striking resemblance to the influenza of the northern parts of Europe, minus the disposition to relapse. Nothing pecular was demanded in their treatment. Mercurial purges and saline diaphoretics abated the fever; ipecacuana relieved the congested mucous membrane, and lessened the cough; but when the dyspnœa returned, as it sometimes did, from a flood of secretion, then a stimulating astringent, such as opium and ammonia, was found very useful. The etiology of this little invasion was as obscure as it was interesting. Nearly every one on board suffered, yet there was no apparent climatic change to account for it. The temperature was certainly the highest we had yet experienced, and Mason's hygrometer denoted a higher than average degree of moisture in the air. The ozone papers rather suddenly took the colours one to four, having been previously as high as four to seven for nearly a fortnight. Possibly this had something to do with the phenomenon; at least it may, I think, be a legitimate conjecture."

With reference to ozonometric observations he says—

"I have endeavoured to keep a connected series of observations on the prevalence of ozone, especially within the tropics. Making use of Schönbein's papers and scale, every shade of colour has been observed from the merest trace up to No. 7. The mean for September was 4·8; for October 4·1; and for November 2·6. Unfortunately the observations at the Cape were interrupted by my unavoidable absence; but judging from a steady ascent which was remarked on our voyage south as we distanced the tropic line, the mean,

* Dr. R. Burrows.

mean, if computed, would have been somewhat higher than that of September. Greatest extremes have appeared in harbour or near the land, and often in immediate succession. Most equality was observed at sea, where the paper showed a medium tint. But on calculating the mean for several periods, I have found it to be nearly the same both by sea and land. The hygrometric state of the atmosphere did not seem to have any very material influence, as the same colours appeared with a wide range of dew point, and a very different degree of saturation. The number of observations are, however, too limited for the inference of a fair general conclusion."

Diseases of the Alimentary Canal.—Although the ratio of cases coming under this head is much less than in the preceding year, the mortality is greater. There were twenty-seven cases of dysentery, and 185 of diarrhœa altogether under treatment, and of these four cases of dysentery were invalided and two had a fatal termination.

There were seventeen cases of dysentery and eighteen of diarrhœa in the Ariel. The most severe cases of the former disease occurred in men who had previously suffered from that disease in China, and who, on their passage home from that station, had volunteered for the Ariel at the Cape. The surgeon states that in none of the cases was there any of that high inflammatory action which is usually associated with this disease in the tropics. Nothing like fibrinous casts were remarked; only in two or three cases did the dejections become truly sanguineous; copious dirty-water evacuations usually giving place to liquid fæces as the cure advanced. The patient would present himself after one, or perhaps two days purging, with comparatively slight general disturbance. Obviously there was no retention of secretions, and fæces were absent simply because they had been swept away by a flood of dark dirty water. A trial or two of a preliminary dose of castor oil only did harm. It was, therefore, his practice to begin with ipecacuana in doses of two and a half grains, combined with a third of a grain of opium every two, three or four hours. As a rule it was better to avoid nausea, and this was managed by giving the medicine in a rather hard pill. In febrile cases, however, nausea became an object, and then five grain doses were administered in a softer mass. The discharges would not be restrained at once, but would pass more easily, and with a sense of relief, but a more decided astringent was always necessary before the diarrhœa would entirely cease. Hence, he infers, that ipecacuana is curative in dysentery as much by its mild laxative

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tive property, as by its specific action on the intestinal mucous membrane.

In the Orestes there were three cases of dysentery, and fifty-one of diarrhœa. Much of the diarrhœa is attributed by the surgeon to eating unripe fruit at Zanzibar, but a good many cases occurred at Mahé in the Seychelle Islands, where also one case of dysentery proved fatal. With reference to these cases the surgeon says:—

"Four days leave was given at first, and afterwards for shorter periods during the whole of our stay. On the whole the men behaved well, but a certain proportion of wounds and accidents resulted, and many cases of colic and diarrhœa. Being short of coal, the ship was watered from the shore, but the diarrhœa could not with justice be altogether referred to this circumstance, as, while the men were so much on shore drinking to excess, sleeping anywhere, eating irregularly, &c. &c., a variety of causes of disease were in operation.

"All the water in the island is obtained from little streams, their source being in the clouds and mists always resting on the summit of the island, even when there is no rain. Arising in this way the water contains much vegetable matter, and although clear and sweet when first taken, in a very short time after being brought on board, it becomes discoloured and of offensive odour. Dysentery is the only disease from which the residents suffer to any extent; the children suffer much from colic, and intestinal worms are frequently voided. The resident surgeon says that the dysentery commonly prevalent is not very severe, and is easily checked by treatment, but that when neglected it frequently proves fatal. This I observed in several instances during our stay."

Diseases of the Genito-Urinary Organs.—The ratio of cases of venereal disease appears to be steadily increasing on this station. In 1861 the ratio of cases of syphilis was 47·3, and of gonorrhœa 12·8 per 1,000 of mean force; in 1862 the ratio of syphilis was 52·5, and of gonorrhœa 17·7; in the present year the ratio of syphilis was 60·, and of gonorrhœa 27·4. The mean ratios of these diseases on the station taken for a period of seven years was, for syphilis 24·5, and for gonorrhœa 9·3, so that under both heads the ratios for 1863 are nearly three times as great. Much of this increase is undoubtedly due to the more frequent intercourse that now obtains between our cruizers and the different parts in the Mozambique Channel and in Madagascar. The surgeon of the Narcissus says, that the prevalence of syphilis at the Cape may be estimated at 54· per 1,000 of mean strength:—

"The spread of this loathsome disease on other parts of what is called the Cape Station appears to depend, or more correctly speaking

speaking to be limited, more by the manners and customs, than by the morals of the natives of the places visited by sailors. At Johanna, and at Zanzibar on the east coast, the population is Mahomedan and polygamic. Gonorrhœa is nearly universal; secondary syphilis appears to be not uncommon; but for evident reasons venereal affections are chiefly confined to the inhabitants. At the Seychelles the original colonists were French. Along the coast line of Madagascar decapitations left for a long time a great surplus of the female population, and a great scarcity of the male sex. Syphilis is again becoming frequent in those places visited by ships from the Mauritius."

During the present year, however, most of the disease was contracted at Cape Town by men on leave, and there seems to be little doubt that it prevails there to a much greater extent than it used to do. At Tamatave, the principal seaport in Madagascar, prostitution is so universal that, as the surgeon of the Ariel says, from a native point of view it can hardly be said to exist, the congress of the sexes being all but unrestricted. All his inquiries lead him to believe that syphilis is by no means rare among the natives; and it would appear that at that place the beach is infested by a class of women who lie in wait for boats' crews, and who from their intercourse with the crews of cattle vessels from the Mauritious are all more or less diseased. Of Zanzibar the medical officer* of the Penguin says: "Syphilis and gonorrhœa are exceedingly common in the ship after every visit to Zanzibar. As this town is one of the principal commercial places on the east coast, and sailors from all parts of the globe visit here, there is unhappily no lack of prostitution." He speaks of a very severe form of venereal disease which he has seen at Zanzibar, in which gangrene rapidly takes place.

It is thus apparent that this station which heretofore maintained a most favourable character in respect of these diseases, is rapidly attaining a position which will soon, if it continues to progress in an equal degree, put it on a footing with even our home ports.

Diseases not classed.—A petty officer of the Rapid died of diabetes mellitus in the Military Hospital at Natal. He had been a confirmed drunkard, and was constantly on the sick list with trifling ailments, each of which, however, was accompanied with a remarkable degree of debility. When under treatment it was observed that while on the one hand his appetite

* Assistant Surgeon Stables.

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tite was so ravenous, that he was in the habit of going round all the messes on the lower deck after meal hours to beg for any little scraps of meat, he was steadily becoming more and more emaciated. This led to an examination of his urine, which it was found was voided in very large quantities, and abounded in sugar. No treatment adopted appeared to check the disease in the least. He became daily more and more emaciated and weak, and as the disease seemed to gather strength his appetite became even more ravenous. Partial loss of power, and of sensation at the same time, in both arms took place, and the feet and ankles became œdematous. A sweet hay scent proceeding from his body was perceptible on approaching him, and the breath had the same odour. About the same time the skin of the face and hands assumed a dark colour, and peeled off in scales. In this condition he was sent to the military hospital at Durban, Port Natal, where he died.

A somewhat obscure case of death, apparently from pyæmia, occurred in a Krooman of the Rapid. This man presented himself on the 14th of May with a small boil on the right knee, over the patella, so small indeed, that it was not considered necessary to enter him on the sick list. The boil was opened, poultices applied, and he progressed favourably until the afternoon of the 15th, when he drew attention to a large swelling under the gluteal muscles of the right side, which had come on very rapidly. Distinct fluctuation could be detected very deep seated, as if between the gluteal muscles and the ileum. At the same time feverish symptoms set in, the pulse became small and quick, the tongue dry and the skin hot. On the 16th the tumour had much decreased in size, but the pyrexial symptoms ran very high, with a small thready pulse, and a dry parched tongue. There was occasional delirium, and the countenance presented a most anxious expression. A most careful examination failed to detect any disease in any organ of the body. From this time he got rapidly worse, delirium became constant, the respiration very rapid, and the strength rapidly failed. He died early on the afternoon of the 17th. On post-mortem examination of the body no morbid appearances whatever could be detected within the brain, lungs, heart, or any of the abdominal organs. They are said indeed to have been unusually healthy for a man of his age (50). On cutting down upon the abscess on the dorsum of the ileum, a collection of matter was found between the acetabulum and tuber ischii, the only disease discoverable about him.

A case

A case of death from alcoholic poisoning appears in the returns from the Gorgon. The man, a ward room steward, was a confirmed spirit drinker, and seemed to be able to tolerate large quantities of spirit without becoming intoxicated. Just before his last illness he had taken a larger than usual quantity of some fiery and bad cheap Mauritius rum. He presented himself labouring under symptoms of acute dyspepsia, accompanied with considerable prostration. He was very nervous and tremulous, and the stomach so irritable that nothing could be retained by it. He gradually became more and more exhausted; symptoms of coma set in, and he ultimately sank in a state of profound coma.

Wounds and Injuries.—A young officer sustained a fatal fracture of the skull by falling from aloft. He had been standing across the stop of the maintop bowling, when it jerked him out of the top, and he fell into the first gig on deck, striking the gunwale with his head. A seaman fell from aloft, and died from fracture of the pelvis, several spiculæ of bone from which punctured the pelvis of the kidney, the vessels of the mesentery, and the descending colon. A Krooman had his skull fatally fractured by a fall from a height of about seventeen feet, head foremost, into a fissure between two rocks. His head was so firmly impacted between the rocks that he was with difficulty extricated. A marine sustained a fatal gunshot wound of the chest in action with some Arabs.

A seaman was drowned off the coast of Madagascar by the capsizing of a boat in a gale of wind, and another seaman was found drowned in the harbour at Simon's Town. How he got into the water is not known, but it is believed that he had fallen or jumped overboard from the head after being on leave.

One man died from the effects of alcoholic poisoning.

There were twenty-two deaths altogether, fifteen being from disease, and seven from wounds and injuries of various kinds, from drowning and from alcoholic poisoning, the former being in the ratio of 16·2, and the latter of 5· per 1,000 of mean force, being a total death-rate of 16·2 per 1,000, which is much below the death-rate of the preceding year. The greatest amount of mortality, however, in 1862 arose from the massacre of two boats' crews.

Invalided.—One man was invalided for ague; three for diseases of the brain and nervous system; six for diseases of

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the organs of respiration; five for functional or organic disease of the heart; five for affections of the alimentary canal, of whom four suffered from dysentery; nine for diseases of the genito-urinary organs; seven for rheumatism; one for ulcer; one for a chronic skin disease; eight for dyspepsia and debility; one for obstinate and persistent headache; three for wounds and injuries; and two for hernia, making a total of 52 invalided, or in the ratio of 38·5 per 1,000 of mean force, which is somewhat in excess of the invaliding rate of the preceding year.

Table, No. 1.

Showing the Number of Cases of all Diseases and Injuries, and the Number Invalided and Dead, with the Ratio per 1,000 of Mean Force.

DISEASE OR INJURY.	Number of Cases.	Ratio per 1,000 of Mean Force.	Number Invalided.	Ratio per 1,000 of Mean Force.	Number Dead.	Ratio per 1,000 of Mean Force.
Continued and Remittent Fever	142	105·1	—	—	2	1·4
Intermittent Fever	103	76·2	1	·7	—	—
Epilepsy	3	2·2	2	1·4	—	—
Paralysis	1	·7	1	·7	—	—
Delirium Tremens	4	2·9	—	—	—	—
Neuralgia	4	2·9	—	—	—	—
Inflammation of the Lungs and Pleura	14	10·3	3	2·2	4	2·9
Phthisis and Hæmoptysis	8	5·9	3	2·2	4	2·9
Influenza and Catarrh	250	185·1	—	—	—	—
Cynanche	43	31·8	—	—	—	—
Functional and Organic Disease of the Heart	8	5·9	5	3·7	—	—
Hæmorrhoids	3	2·2	—	—	—	—
Varix	4	2·9	—	—	—	—
Dysentery	27	20·	4	2·9	2	1·4
Diarrhœa	185	137·	—	—	—	—
Constipation and Colic	62	45·9	1	·7	—	—
Inflammation of the Bladder and Kidneys	1	·7	1	·7	1	·7
Syphilis	81	60·	4	2·9	—	—
Gonorrhœa	37	27·4	—	—	—	—
Orchitis	20	14·8	1	·7	—	—
Stricture	7	5·1	3	2·2	—	—
Incontinence of Urine, &c.	3	2·2	—	—	—	—

TABLE, No. 1.—Showing the Number of Cases of all Diseases, &c.—*continued.*

DISEASE OR INJURY.	Number of Cases.	Ratio per 1,000 of Mean Force.	Number Invalided.	Ratio per 1,000 of Mean Force.	Number Dead.	Ratio per 1,000 of Mean Force.
Rheumatism	153	113·3	7	5·1	—	—
Gout	2	1·4	—	—	—	—
Disease of the Bones and Joints	3	2·2	—	—	—	—
Ophthalmia	9	6·6	—	—	—	—
Otitis and Deafness	5	3·7	—	—	—	—
Erysipelas	1	·7	—	—	—	—
Bubo (*Symp.*)	11	8·1	—	—	—	—
Phlegmon and Abscess	465	344·4	-	-	2	1·4
Ulcer	223	165·1	1	·7	—	—
Psora	4	2·9	—	—	—	—
Eruptions, &c.	13	9·6	1	·7	—	—
Dyspepsia and Debility	147	108·8	8	5·9	—	—
Dropsy	3	2·2	—	—	—	—
Worms	3	2·2	—	—	—	—
Headache, &c.	2	1·4	1	·7	—	—
Wounds and Injuries	497	368·1	3	2·2	4	2·9
Burns and Scalds	20	14·8	—	—	—	—
Hernia	4	2·9	2	1·4	—	—
Drowned	-	-	-	-	2	1·4
Alcoholic Poisoning	1	·7	-	-	1	·7
TOTAL	2,576	1908·1	52	38·5	22	16·2

TABLE, No. 2.

SHOWING the Number of DAYS' SICKNESS from each DISEASE and from INJURIES, the Average Number of Men Sick Daily, with the Ratio per 1,000 of Mean Force.

DISEASE OR INJURY.	Number of Days' Sickness on Board.	Number of Days' Sickness in Hospital.	Total Number of Days' Sickness.	Average Number of Men Sick Daily.	Ratio per 1,000 of Mean Force.
Continued and Remittent Fever	1,206	237	1,443	3·9	2·8
Intermittent Fever	727	58	785	2·1	1·5
Epilepsy	153	89	242	·6	·4
Paralysis	36	-	36	—	—
Insanity	-	164	164	·4	·2
Delirium Tremens	49	30	79	·2	·1
Neuralgia	37	-	37	·1	—
Inflammation of the Lungs and Pleura	227	348	575	1·5	1·1
Phthisis and Hæmoptysis	347	873	1,220	3·3	2·4
Influenza and Catarrh	1,445	188	1,633	4·4	3·2
Cynanche	227	-	227	·6	·4
Functional and Organic Disease of the Heart	259	377	636	1·7	1·2
Hæmorrhoids	22	40	62	·1	—
Varix	89	-	89	·2	·1
Inflammation of the Stomach and Bowels	-	288	288	·7	·5
Dysentery	283	479	762	2·	1·5
Diarrhœa	959	51	1,010	2·7	2·
Constipation and Colic	288	21	309	·8	·5
Inflammation of the Liver	26	-	26	—	—

TABLE, No. 2.—Showing the Number of Days' Sickness from each Disease, &c.—*cont^d.*

DISEASE OR INJURY.	Number of Days' Sickness on Board.	Number of Days' Sickness in Hospital.	Total Number of Days' Sickness.	Average Number of Men Sick Daily.	Ratio per 1,000 of Mean Force.
Inflammation of the Bladder and Kidneys	22	116	138	·3	·2
Syphilis	1,963	3,004	4,967	13·6	10·
Gonorrhœa	690	251	941	2·5	1·8
Orchitis	331	273	604	1·6	1·1
Stricture	107	54	161	·4	·2
Incontinence of Urine, &c.	21	22	43	·1	—
Rheumatism	2,044	1,208	3,252	8·9	6·5
Gout	32	- -	32	—	—
Disease of the Bones and Joints	44	127	171	·4	·2
Ophthalmia	164	111	275	·7	·5
Otitis and Deafness	28	27	55	·1	—
Erysipelas	19	- -	19	—	—
Bubo (*Symp.*)	407	- -	407	1·1	·8
Phlegmon and Abscess	3,999	239	4,238	11·6	8·5
Ulcer	3,604	944	4,548	12·4	9·1
Psora	26	16	42	·1	—
Eruptions, &c.	469	111	580	1·5	1·1
Dyspepsia and Debility	716	523	1,239	3·3	2·4
Dropsy	77	- -	77	·2	·1
Worms	11	- -	11	—	—
Headache, &c.	6	153	159	·4	·2
Wounds and Injuries	5,576	1,382	6,958	19·	14·
Burns and Scalds	166	93	259	·7	·5
Hernia	124	21	145	·3	·2
Alcoholic Poisoning	12	- -	12	—	—
TOTAL	27,038	11,918	38,956	106·7	79·

TABLE, No. 3.

SHOWING the Number INVALIDED from each Ship employed on the CAPE OF GOOD HOPE Station.

CAUSE of INVALIDING.	Ariel.	Gorgon.	Narcissus.	Orestes.	Penguin.	Rapid.	Seringapatam.	Valorous.	TOTAL.
Intermittent Fever	–	–	–	1	–	–	–	–	1
Epilepsy	–	–	–	1	–	–	1	–	2
Paralysis	–	–	–	–	–	–	–	1	1
Headache	–	–	–	–	–	–	1	–	1
Inflammation of the Lungs and Pleura	–	–	–	2	1	–	–	–	3
Phthisis	–	3	–	–	–	–	–	–	3
Disease of the Heart	–	–	1	2	–	–	1	1	5
Dysentery	–	–	–	3	1	–	–	–	4
Constipation	–	–	–	–	–	1	–	–	1
Syphilis	–	1	1	1	–	1	–	–	4
Diabetes	–	–	–	–	–	1	–	–	1
Stricture	1	–	–	1	–	–	–	1	3
Tumor Testis	–	–	1	–	–	–	–	–	1
Rheumatism	3	–	–	1	–	1	1	1	7
Ulcer	–	–	–	–	1	–	–	–	1
Eruptions	–	–	–	–	–	–	–	1	1
Dyspepsia and Debility	–	1	1	3	2	–	1	–	8
Wounds and Injuries	–	2	1	–	–	–	–	–	3
Hernia	–	1	–	1	–	–	–	–	2
TOTAL	4	8	5	16	5	4	5	5	52

TABLE, No. 4.

SHOWING the Number of DEATHS in each Ship employed on the CAPE OF GOOD HOPE Station.

CAUSE OF DEATH.	Ariel.	Gorgon.	Narcissus.	Orestes.	Penguin.	Rapid.	Seringapatam.	Valorous.	TOTAL.
Continued and Remittent Fever -	1	–	1	–	–	–	–	–	2
Pleuro-pneumonia - - - -	–	–	–	1	–	–	3	–	4
Phthisis - - - - - -	–	2	–	1	–	–	–	1	4
Dysentery - - - - - -	–	–	–	1	1	–	–	–	2
Diabetes Mellitus - - - - -	–	–	–	–	–	1	–	–	1
Lumbar Abscess - - - - -	1	–	–	–	–	–	–	–	1
Abscess and Pyæmia - - -	–	–	–	–	–	1	–	–	1
Alcoholic Poisoning - - - -	–	1	–	–	–	–	–	–	1
Wounds and Injuries - - -	–	–	2	–	–	–	1	–	3
Killed in Action - - - - -	–	–	–	–	–	1	–	–	1
Drowned - - - - - -	1	–	1	–	–	–	–	–	2
TOTAL - - -	3	3	4	3	1	3	4	1	22

Table, No. 5.

Showing the Names of the Ships; the Average Complement and the Mean Force; the Number of Cases; the Number of Days' Sickness on Board; and the Average Number of Men Daily Sick in each Ship.

C. Commissioned.

Rate.	NAME of SHIP.	Where Commissioned.	When Commissioned.	Number of Guns.	Tonnage.	Horse Power.	Period.	Average Complement.	Average Complement corrected for Time.	Number of Cases.	Number of Days' Sickness on Board.	Average Number of Men Daily Sick.	Ratio per 1,000 of Mean Force of each Ship.	Number discharged to Hospital.
Fourth Rate -	Narcissus - -	Devonport -	20 Dec. 1860	39	2,665	S. 400	Year - -	530	530	854	9,239	25·3	47·7	43
Sixth Rates -	Orestes - -	Sheerness -	31 Aug. 1861	21	1,715	S. 400	Year - -	265	265	475	6,517	17·8	67·1	21
	Valorous - C.	Devonport -	15 April 1863	16	1,257	P. 400	1 July to 31 Dec.	230	115	125	1,761	4·8	41·7	11
Sloops - -	Ariel - - -	Portsmouth	31 Aug. 1860	7	486	S. 60	Year - -	100	100	304	3,069	8·3	83·	6
	Rapid - - -	Woolwich -	12 June 1862	11	672	S. 150	Year - -	115	115	366	3,009	8·2	71·3	7
	Gorgon - -	Woolwich -	29 April 1859	6	1,111	P. 320	Year - -	170	170	312	2,222	6·	35·2	8
Gun Vessel -	Penguin - -	Devonport -	— Dec. 1860	5	431	S. 80	7 Aug. to 31 Dec.	50	20	95	864	2·3	115·	4
Receiving Ship	Seringapatam -	Cape of Good Hope.	- - -	–	1,152	–	20 July to 31 Dec.	70	35	47	365	1·	28·5	9

Table, No. 6.

Showing the Number of Cases of all Diseases and Injuries in each Ship on the Cape of Good Hope Station.

DISEASE OR INJURY.	Ariel.	Gorgon.	Narcissus.	Orestes.	Penguin.	Rapid.	Seringapatam.	Valorous.	Total.
Continued and Remittent Fever	38	–	17	37	4	43	–	3	142
Intermittent Fever	16	56	2	15	–	14	–	–	103
Epilepsy	–	–	1	2	–	–	–	–	3
Delirium Tremens	–	–	–	3	1	–	–	–	4
Paralysis	–	–	1	–	–	–	–	–	1
Neuralgia	–	–	3	–	–	1	–	–	4
Inflammation of the Lungs and Pleura	4	–	–	8	–	2	–	–	14
Phthisis and Hæmopytsis	1	2	1	2	–	2	–	–	8
Catarrh	25	57	64	71	4	17	6	6	250
Cynanche	4	1	20	11	2	4	–	1	43
Functional and Organic Disease of the Heart	–	–	3	2	–	–	2	1	8
Hæmorrhoids	1	–	–	1	–	–	1	–	3
Varix	–	–	1	2	1	–	–	–	4
Dysentery	17	5	1	3	–	–	1	–	27
Diarrhœa	18	34	32	51	3	43	4	–	185
Constipation and Colic	9	1	1	25	–	23	–	3	62
Inflammation of the Kidneys and Bladder	–	–	1	–	–	–	–	–	1
Syphilis	6	9	29	19	8	1	1	8	81
Gonorrhœa	2	–	11	15	4	2	2	1	37
Orchitis	1	2	7	2	–	4	–	4	20
Hydrocele	–	1	1	1	–	–	–	–	3
Stricture	1	1	3	1	–	–	–	1	7
Incontinence of Urine, &c.	–	1	–	1	–	–	1	–	3
Rheumatism	19	17	31	36	5	12	13	20	153
Gout	–	–	2	–	–	–	–	–	2
Disease of the Bones and Joints	1	–	1	1	–	–	–	–	3
Inflammation of the Eyes	1	–	6	–	–	1	–	1	9
Otitis and Deafness	1	–	2	–	1	1	–	–	5
Erysipelas	–	–	–	1	–	–	–	–	1
Bubo (*Symp.*)	1	2	4	4	–	–	–	–	11
Phlegmon and Abscess	36	22	257	40	12	67	4	27	465
Ulcer	24	40	65	27	10	50	–	7	223
Psora	–	–	4	–	–	–	–	–	4
Eruptions, &c.	–	–	9	1	–	2	–	3	13
Dyspepsia and Debility	22	9	75	7	22	3	2	7	147
Headache, &c.	1	–	1	–	–	–	–	–	2
Worms	–	–	1*a*	–	2	–	–	–	3
Wounds and Injuries	51	50	193	78	15	72	10	28	497
Burns and Scalds	4	1	4	5	–	2	–	4	20
Hernia	–	–	–	3	1	–	–	–	4
Alcoholic Poisoning	–	1	–	–	–	–	–	–	1
Total	304	312	854	475	95	366	47	125	2,576

a Tænia.

(To face p. 203.)

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(To face p. 203.)

40°
50°
60°
70°
80°
RUSSI
A
CHI
PERSIA
INDIA
PERSIAN G.
RED SEA
ARABIA
AFRICA
HINDOO
Bombay
ARABIAN SEA
Aden
Socotra
Laccadive Is.
C. Comorin
Maldive Is.
60°
50°
40°
30°
20°
10°
0°

EAST INDIAN AND CHINA STATION.

East Indian and China Station.

The squadron on this station during the year 1863 consisted of thirty-six vessels, in which were comprised two frigates of the fourth-rate, two of the fifth-rate, and four of the sixth-rate. There were seven sloops, twelve gun vessels, two steam-vessels, one gun-boat, two steam surveying vessels, one troop ship, one hospital ship, one receiving ship, and one hulk. Besides these, there were eight or ten small gun-boats without medical officers, and from which, consequently, only death returns were obtained. The total mean force corrected for time was 5,240; but as no returns of cases of sickness were obtained from the gun-boats, the force employed in them has been deducted in the computation of the ratio of cases under treatment in the squadron, which will leave a mean force for that purpose of 4,740 men. The total force, however, has been taken in computing the death-rate. Of the thirty-six vessels, twenty-eight were on the station during the whole year, and the remainder for periods varying from two to eight months. The total number of cases entered on the sick list was 10,706, of which 336 were invalided and 167 died. The ratio of cases was 2258·6; of invaliding 64·; and of mortality 31·8 per 1,000 of mean force. As compared with the preceding year, this shows a slight diminution in the sick rate; a reduction in the ratio of mortality by more than one-half, and an increase in the ratio of invaliding by nearly one-third.

Of the vessels employed during the whole year on the ordinary duties of the station, the smallest sick rates were in the Scout, Slaney, and Hornet; while the highest appear in the returns from the Pearl, the Ringdove, and the Vulcan. The Scout was, during a large portion of the year, employed in the East Indian Archipelago, her service in China being confined to a short stay at Hong Kong, Macao, and Whampoa, whence she again returned to Singapore. The Slaney was stationed throughout the whole year in the Yangtze-Kiang

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Kiang river, chiefly at Hankow and Nankin. During the hot season, while at the former place, quinine was regularly administered to the ship's company, and with good effect. The Hornet was altogether employed on the East Indian division of the station. The Pearl was for the most part employed in Japan, but she was also for some time stationed at Shanghai. The most prevalent diseases from which the ship's company suffered appear to have been fever, diarrhœa, small-pox, and syphilis. The Ringdove also was chiefly employed in Japan and Shanghai, where she had a great many cases of fever and diarrhœa. The Vulcan was lying in the river at Shanghai from the 4th of April to the 22nd of December. Dysentery, diarrhœa, and ague were the most prevalent diseases.

The daily loss of service from febrile disease was equal to about twenty-seven men, or in the ratio of 5· per 1,000 of mean force; from diseases of the brain and nervous system, it was in the ratio of ·6 per 1,000; of the respiratory organs, 5·9; and of the heart and blood vessels, 1·. The daily loss of service from diseases of the alimentary canal was equal to between fifty-one and fifty-two men, about forty-seven of whom were labouring under diarrhœa or dysentery. The total daily sick rate under this head was 9·7 per 1,000. There was a daily sick rate from disease of the liver of ·7 per 1,000; of the genito-urinary organs 15·2, altogether depending on venereal disease; from rheumatism the daily rate of sickness was 4·3; from diseases of the organs of special sense it was 2·3; of the skin and cellular tissue 16·3; from diseases not classed, 2·8; and from wounds and injuries of various kinds, 10·7. The total number of men sick daily was about 406, which was in the ratio of 77·6 per 1,000 of mean force, a considerable decrease as compared with the preceding year.

Fevers.—There were 574 cases of continued or remittent fever, 441 of intermittent fever, 38 of small-pox, and six of scarlatina, in the squadron, throughout the year; of these, twelve cases of primary fever, ten of small-pox, and two of scarlatina, had a fatal termination. The mortality from small-pox appears enormous, being not less than 1 in 3·8. The total days' sickness on board ship and in hospital from primary fever gives an average of nearly ten days' treatment to each case; of intermittent fever, eight days; of small-pox, over seventeen days; and of scarlatina, nine and a half days.

Continued

Continued and Remittent Fever.—There were sixty-one cases of primary fever in the Euryalus: these comprise one case of continued fever, six of remittent, and fifty-four of ephemeral fever. The cases of ephemeral fever were tolerably equally distributed over the several quarters of the year, a circumstance which the surgeon* considers as dependent upon the fact that the cause existed within the ship itself, being the overcrowding and imperfect ventilation of the lower deck. All the cases of remittent fever occurred during the months of July and August, and are attributed to malarious emanations from the swamps at Yokohama; they were all of much severity; the average number of days each case was on the sick list being twenty-six and a half. The febrile accessions usually set in about noon and midnight; they were very severe, and attended, as a rule, with much cerebral disturbance; there was also a great deal of gastric irritability. The single case of continued fever was of the enteric type. The man was originally entered on the sick list as a case of diarrhœa. All the symptoms of enteric fever were present excepting the eruption. The disease was contracted at Yokohama, where its prevalence is attributed to the defective drainage.

In the Severn, Leopard, Odin, and Barossa, all the cases of primary fever were of a trifling character, with the exception of one in the Severn and two in the Barossa. The severe case in the Severn occurred at Trincomalee, in the person of an officer; it was attended from the first with great debility, glazed tongue, diarrhœa, and abdominal tenderness; the patient eventually made a good though tardy recovery. Both of the cases in the Barossa proved fatal. In one, the seizure and its fatal result were attributed to exposure to the sun while assisting in transporting a vessel from one part of Hong Kong Harbour to another; and in the other, death was doubtless owing chiefly to the reduced state to which the man had brought his system by continued debauchery.

In the other vessels of the squadron in which fevers were most prevalent, the cases, as a rule, were of a very mild type. Fatal cases, however, occurred in several of them. In the Argus the fatal case had no connection with the station, having been contracted at Plymouth, while the ship was fitting out. It was a case of enteric fever. Remittent fever proved fatal to a marine of the Perseus at Lokohama. At first it was thought

* Surgeon D. L. Morgan.

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thought that the disease was overcome, but a sudden exacerbation of all the symptoms took place, characterised chiefly by intensity of febrile action and great cerebral disturbance rapidly proceeding to coma, convulsions, and death. A marine of the Leven died from fever at Singapore, but there are no details in office connected with his case, the returns from this vessel being imperfect. In the Slaney at Hankow a seaman while at the tiller fell down in a fit. It appeared that he had been much affected with lumbrici, and on that morning had passed three large ones by the mouth. On the following day he passed several more of a large size, and next day he was seized with diarrhœa and general pyrexial symptoms. These symptoms assumed a low form, petechiæ appeared over the whole body, sordes on the teeth, delirium set in, and he ultimately sank a fortnight after being placed on the sick list. Two days before the fatal event took, he voided several dead worms. There is no necessary connexion between the presence of these worms in the stomach and intestines and the fever; but there can be little doubt that existing in the large numbers they appear to have done, they must have very seriously complicated the case, and they were in all probability the cause of the fit with which the man was seized two days before the fever set in. During the months of July and August several of the Slaney's men suffered from ascarides. They were attributed to the water of the river which was employed for drinking purposes, and contained a large amonnt of organic impurities. A filter was subsequently improvised on shore, by packing a small cask with sand and charcoal, through which all the water, previously cleared with alum, was filtered. Much advantage is said to have accrued from this measure.

A leading stoker of the Princess Charlotte died of fever in the hospital ship at Hong Kong. The disease is said to have originated in sunstroke. There was a state of extreme prostration from the first. The man lay on his back, in bed, motionless, with his features fixed and inexpressive, and his manner apathetic and indifferent to all that was going on around him. He died on the tenth day after being placed on the sick list.

Of the four deaths from fever that occurred in the gunboats, little or nothing is known. One is returned as brain fever; two as typhoid fever; and one appears to have been complicated with dysentery.

Intermittent

Intermittent Fever.—The ships that were most affected with fevers of this type were the Encounter, the Ringdove, and the Vulcan. In the Encounter, the largest number of cases occurred during Midsummer quarter, when the vessel was in Japan. They almost all occurred during the first three quarters of the year, the numbers in the Lady and Michaelmas quarters being equal. The cases were, as a rule, not of a severe character, the average duration of each on the sick list being about six or seven days. Ague was very prevalent in the Ringdove during the Lady and Midsummer quarters, when the ship was in dock at Hong Kong. The disease is attributed to over work and exposure to malarious emanations while in dock. The average duration of each of these cases was over seven days.

There were ninety-one cases of intermittent fever in the Vulcan. These were, as in the other vessels, constantly recurring attacks, on exposure of any kind, in a certain number of individuals prone to the disease. At Hong Kong during the prevalence of the north-east monsoon, and at Shanghai when summer had fairly set in, periodic fevers were very prevalent in this vessel. The average duration of each case on the sick list was 7·7 days.

Six men were invalided for the sequelæ of ague from among the ships of the squadron; but there was no loss to the service by death from this class of fever.

Small-pox.—There were thirty-eight cases of small-pox in the squadron, and of these ten had a fatal termination. There was a single case in the Euryalus which proved fatal. The subject was a young private of marines, who had only recently joined the ship. As he had not been out of the ship, and consequently had had no communication with any of the other ships or with the shore, it was thought at the time that he must have contracted the disease when doing duty as sentry on the gangway, when the Pearl was a short distance to windward of the ship with twenty-three cases of small-pox on her upper deck. The Pearl, however, appears to have had free communication with other vessels of the squadron during the time the small-pox was prevailing epidemically amongst her crew; it is therefore much more probable that the disease was conveyed to the Euryalus by some of the Pearl's men. The case occurred at Yokohama and the man had never been vaccinated, a very unusual circumstance in a marine. The eruption was scanty on the body and extremities, but confluent on the face.

A fatal

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A fatal case of small-pox occurred in the Leven at Bombay. The man contracted the disease in the native town there, while on leave, and on its specific character becoming developed was at once transferred to the European General Hospital. While there it assumed the malignant confluent type and terminated fatally. No mention is made in any of the returns from this vessel as to whether the man showed any marks of vaccination or not.

In the Christmas quarter there were four cases of small-pox in the Leopard at Nagasaki, where the disease was epidemic on shore. They were of a mild type, and no loss accrued to the service from them. Nothing is said as to whether the patients had been vaccinated or not; but as two of them were officers, it is more than probable that they, at all events, were. With reference to these cases, the surgeon* of the vessel says:—

"In December, small-pox appeared on shore to some extent amongst the natives; but I have been assured by the Dutch medical officer who has charge of the native hospital, that there is always more or less of it in Nagasaki, yet in December there were so many cases as to justify its being considered epidemic. The cases that occurred on board the Leopard seemed to be of a mild form; but it was deemed prudent to hire a small house on shore for them, to which they were immediately removed, and kept in strict quarantine; general leave was also stopped for the time."

There were twenty-five cases of small-pox in the Pearl and of these three proved fatal. The disease was imported into the vessel at Nagasaki, but did not appear until she was at Yokohama. The only information of any value that can be obtained with reference to this epidemic is from the journal of the assistant surgeon,† who says:—

"On the 8th of April a case of small-pox appeared in a man who had been on the sick list for the last six weeks with diarrhœa. This case became complicated and proved fatal on the sixth day of the eruption. As the patient had been on the sick list for a long time, and had been generally confined to bed, there was some difficulty in accounting for his contracting small-pox. No leave had been given either at Nagasaki or Yokohama. The only intercourse that the ship's company had with any of the natives was confined to the bumboatmen, or a few washerwomen who came on board. Knowing the contagious power of the disease, and being aware that some cases had appeared at Nagasaki, it was considered not at all improbable that the disease had been conveyed on board, by means of fomites, by some of the natives. Some time, however, after his death

* Surgeon James Lilburne. † Dr. H. S. Smart.

death we heard that one of the servants of the British Consul who took a passage in the ship to Yokohama, had been living on shore at a house in Nagasaki, where small-pox was prevalent, and had brought his clothes on board from that house, on the day we sailed from that port.

"On the 15th the patient died, and no fresh case occurred until the 21st, when a boy was seized with it. On the 22nd there were three cases more; on the 23rd, seven cases; on the 24th, five; on the 25th, two; on the 26th, three; on the 27th, two; and on the 17th of May the last case occurred, in the person of an officer. The epidemic was mild upon the whole, although two other cases proved fatal; one from the primary fever on the fourth day, and the other from the violence of the disease on the ninth day of the eruption. Out of the whole number, four cases were confluent, the others were extremely mild and modified. All had been vaccinated, but those youngest in years, or most recently vaccinated, suffered least from the disease."

There were five cases of small-pox in the Centaur, at Yokohama, two of which proved fatal. The first case occurred in the person of an officer who had visited the Pearl while small-pox was epidemic in that vessel. The disease in this instance was modified, and ran a mild course; it never assumed the pustular form. The second case also occurred in an officer who had scrupulously avoided the former patient during his illness, and had conversed with him only once for a few minutes, on the upper deck, during his convalescence. As soon as the eruption appeared, he was sent to a Japanese junk which had been hired for the small-pox cases of the Pearl. This case proved severe and confluent, and ended fatally on the tenth day of the disease. The third case was that of a boy who had been in the habit of making the bed of the last patient, before the nature of the disease under which he was labouring became apparent; he also was sent to the junk; the case proved a very mild modified one. The fourth case was that of a seaman in whom, up to the fourth day of the attack, the symptoms were very obscure; on that day, however, a badly developed eruption appeared, with much congestion of the brain and lungs. He was sent to the junk, where he died on the sixth day, the eruption never having properly formed. The fifth and last case occurred in a boy who, having had small-pox before, had gone to the junk to wait upon the last patient. His case proved very mild indeed.

Of these five cases, two in whom the disease assumed a mild form, and one of those which terminated fatally, bore marks of having been vaccinated. In the other fatal case the person had not been vaccinated; and one in whom the dis-

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ease was very mild had previously suffered from small-pox. In the man who died, and who bore the marks of previous vaccination, the disease was of the petechial variety. The following is the report of the case by the surgeon* of the Centaur :—

"He was put on the sick list on the 1st of June, complaining of headache and giddiness, sickness of stomach, and pain in the back. He had felt unwell and languid for several days. When he presented himself, he had a good deal of fever; skin hot; pulse eighty-five; face flushed; tongue coated and dry, and much thirst. He had been vaccinated. On the 2nd, a very diffuse rose-coloured eruption appeared on the abdomen, extending from the umbilicus to the thighs, and round the loins; there was none on the face, arms, or chest. On the 3rd and 4th the eruption continued to extend over the chest, arms, and legs, assuming the aspect of the petechial eruption of scorbutus, but no appearance of vesicles, no diminution of fever, and great lethargy. On the morning of the 5th he was in much the same state; he had some delirium during the night; the eruption on the hands and arms became obscurely papular; the eyes were suffused and the face swollen, and he had also sore throat, attended with a copious discharge of viscid mucus. Judging his case to be one of small-pox, notwithstanding the anomalous and undeveloped character of the eruption, he was sent to the hospital junk, where he remained without any marked change till the evening of the 6th, when he became affected with great dyspnœa, from the accumulation of mucus in the throat, and having no strength to expectorate, he died asphyxiated."

A single case of small-pox occurred in the Pantaloon; the disease was contracted in the General Hospital at Singapore, where the patient had been under treatment for remittent fever, and where a few days previous to his discharge to his ship, a very severe case of the disease had been sent in from one of the merchant ships lying in harbour. Whether the man had been previously vaccinated or not, is not stated.

The case of small-pox that occurred in the Sphinx was in the person of a seaman who had belonged to the Beagle. Small-pox had been imported into that vessel at Hong Kong, as will appear hereafter, when this vessel is noticed in the Irregular Force, to which it has been transferred. No mention is made as to the man's having been vaccinated or not.

Scarlatina.—Six cases of this form of eruptive fever appear in the returns from the Rattler, one of which proved fatal. Three of these cases occurred on the 14th of December, when the

* Dr. H. Arnot.

the vessel was at Nagasaki, and the remainder on the 25th, 26th, and 27th of the same month, the ship then being at Yokohama. No information whatever is given respecting this outbreak, nor is any reference made as to its being prevalent on shore at Nagasaki.

Diseases of the Brain and Nervous System.—Two deaths from apoplexy occurred in the Severn. In one, which took place in the person of a warrant officer, the affection appears to be in some measure traceable to prolonged exposure to the sun's rays some days previous to the development of the more urgent symptoms, when he had been on shore at Bushire, and had ridden for some distance. He had been ailing from that time until he was placed upon the sick list, complaining of diarrhœa and tormina, with great debility and sleeplessness. No delirium was manifested at this time, and he seemed to improve, under the treatment adopted, until the morning of his death, having eaten heartily of breakfast that day. On that afternoon, however, he went below, from the main deck, violently excited, and in a great state of nervous tremor, talking wildly, and saying that the ship's company were pelting him with stones. He was persuaded to lie down, and an anodyne draught was administered to him. About ten minutes after taking it he fell from his bed to the deck. When lifted up, he vomited, was seized with a general tremor, and low muttering delirium set in. This rapidly ran on to coma, and he expired about two hours and a half from the time he left the main deck. On post-mortem examination of the body, a considerable quantity of bloody fluid was found effused between the dura mater and the skull. The vessels of the membranes were turgid with blood. The substance of the brain was soft, and easily broke down under the pressure of the finger. No fluid was found in the ventricles, nor was there any fissure or fracture of the skull.

The other fatal case in this vessel was also one of heat-apoplexy; it occurred in the person of a band-master, a plethoric, short-necked man, who had walked about in the sun, at Bombay, during the previous day. On the evening of the day of his death he had been present with the band during their performance, and had made no complaint of feeling ill to anyone excepting to his messmates. About an hour and a half after the band had ceased playing he was reported to be in a fit, and on being seen by the medical officer, was found in his hammock in a state of complete coma, and evidently moribund. The breathing was laboured, stertorous, and slow; the

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pulse weak and compressible; the eyes were fixed and glazing, with dilated pupils; the lungs and air-passages were choked with mucus, and froth was issuing from his mouth; the countenance was livid, and the lips and nails had a bluish tinge. He died shortly after being seen. After death, very firm old adhesions were found between the dura mater and the skull. The membranes of the brain and the cerebral vessels were congested and engorged, and bloody points appeared on the substance of the brain, which was broken down and softened. The ventricles, on being opened, were filled with bloody serum. There was also engorgement of the lungs to a great extent.

An officer of the Rifleman died, apparently from softening of the brain; but little information has been furnished with reference to his case. It would appear, however, that he had been long an invalid suffering from nervous irritability, with progressing weakness. Vision had begun to be very imperfect for some time, and for several days before his death it was completely gone, and he lay in bed moaning in a loud and painful manner. In this state he appears to have died. Unfortunately, if any examination of the body was made after death, no report of it has been furnished.

A fatal case, returned as brain fever, occurred in one of the gun-boats, but no particulars have been furnished respecting it.

An interesting case of tumour of the dura mater, pressing upon the brain, occasioning epileptiform convulsions and ultimately terminating in death, occurred in a petty officer of the Scout, who during the previous year had been under treatment for coup de soleil. The sun-stroke occurred in April 1862, and was followed by partial paralysis from which, however, he subsequently perfectly recovered. Shortly before the attack he had in a fight received a severe blow on the nose, which fractured some of the bones. They became diseased, and ever after there was a slight discharge of fetid pus from the nostrils, amid which there came away one or two small pieces of bone. The first epileptiform convulsion he had, occurred in the month of January, and was shortly afterwards followed by many other and severe ones. They were somewhat peculiar in their character, being accompanied with paralytic shaking of the left arm and leg. The attack was generally preceded by giddiness, but sometimes occurred when he was asleep, and it was never preceded by the cry so characteristic of the true epileptic seizure. For these fits he was invalided, and while waiting

a passage

a passage to England they increased both in frequency and severity, and ultimately a severe paroxysm terminated in death. The following report of the post-mortem examination of the body is by the surgeon* of the ship :—

"The head was examined ten hours after death. The dura mater was of a brownish colour, and without its usual lustrous appearance. Upon cutting it at its anterior attachment it was found much thickened. The membranes appeared to be adherent to each other, forming a thickness of one-twelfth of an inch, and on turning them on the right side they were found to be attached to the grey matter, which tore away on removing them. At this point there was a small cyst, about the size of a pea, containing pus. Farther back a large tumour was found on the inner surface of the dura mater, irregular in form, nodulated, and extending from opposite the right temporal bone to the vertex. One of the nodules was as large as a pigeon's egg, and had made a deep indentation into the middle portion of the lateral hemisphere. Three other nodules of small size also indented the brain. Upon cutting into these tumours they were found to be of a hard, scirrhous nature. The largest one contained a little pus in its centre."

A gun-room servant of the Pantaloon was sent to the General Hospital at Bombay, labouring under the ordinary, but somewhat severe, symptoms of remittent fever. He improved very slowly from the febrile symptoms, but it was observed during this apparent convalescence that his mind had become much affected and enfeebled, and his ideas very confused. In this condition he was invalided and ultimately discharged to the Odin for a passage to England. While on board that vessel his symptoms fluctuated a good deal. They were mainly characterised by a more or less complete state of amentia, by occasional frontal headache, dilatation of the pupils, a foul tongue (its centre being usually covered with a thin dark brown fur), and by a voracious appetite, and debility, more particularly of the lower extremities. These symptoms, with the exception of the appetite, which failed, became afterwards aggravated by the intense heat, as the vessel drew near the equator. An abscess which he had from the first, behind the ear, ceased to discharge, and this was soon followed by feverishness, frontal headache, stupor, and subsequently coma. From this condition he was roused by the treatment to which he was was subjected, but the improvement was very partial; the mental condition remained unchanged; he answered questions in a vague and incoherent manner;

* Surgeon Seaton Wade.

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manner; his countenance was occasionally anxious, but mostly the expression of the face was vacant, and his pupils dilated. On the day before that on which he died, he appeared rather more intelligent, and there seemed to be some recurrence of memory; on the morning of the day of his death he complained of headache, and he had vomited several times during the night. The vomiting recurred during the day, and in the afternoon he fell into a state of coma, from which he never rallied. The following report of the autopsy is by the surgeon* of the Odin:—

"*Sectio Cadaveris.*—Fourteen hours after death: Body, fairly proportioned though not muscular, but having considerable rigor mortis, and capillary congestion of posterior aspect of body and limbs generally. On removing the calvarium, the dura mater and other investing membranes of the cerebrum appeared perfectly natural and free from abnormal adhesions, but there was some congestion of the veins corresponding to the cerebral convolutions. On removal of the encephalon from the cranium, three and a half ounces, by fluid measure, of serum were collected from the base of the skull and the spinal canal, in a vessel placed underneath, and about two drachms were found in the posterior cornu of the left lateral ventricle. Moreover, a large encysted fluctuating tumour, of about size of a swan's egg, and weighing three ounces, was found embedded in the substance, cineritious and medullary, of the left middle lobe of the cerebrum. It was readily removed, there being no apparent adhesions, and when cut into was found to contain about two and a half ounces of greenish, unhealthy-looking, curdy pus. Its walls were of a soft, fibrinous character, of about a line in thickness, and its nidus in the cerebral mass was of a pinkish hue, and softened to the consistency of clotted cream. There was otherwise no arterial congestion whatever, either of the substance of the brain or of its investing membranes. The thorax and abdomen were not examined."

A seaman of the Racehorse, of a strumous habit of body, was invalided at Hong Kong for scrofula, and discharged to the Sanspareil for a passage to England. On the voyage home he suffered chiefly from debility, anorexia, occasional attacks of intermittent fever, palpitation, and pain in the back. Upon the whole, he appeared to be improving, when he was suddenly seized with rigors, pain in the back, nausea, and vomiting, attended with much constitutional disturbance, and followed by paraplegia, ischuria, subsultus, coma, and death. The disease was considered to be acute hydrorachitis,

* Surgeon William Hoggan.

rachitis, but unfortunately there was no post-mortem examination of the body.

Thirteen cases of delirium tremens occurred in the squadron. Of these, two were in the persons of ward-room officers, one in a warrant officer, three in petty officers, one in a ward-room servant, two in seamen, two in marines, one in a stoker, and one in a bandsman.

Diseases of the Organs of Respiration.—There is a slight decrease in the ratio of mortality under this head as compared with the preceding year, but the ratio of invaliding is much increased. Three men were invalided for inflammatory disease of the lungs or pleura, and two died. Of the fatal cases, one occurred in the person of a seaman of the Perseus, and assumed the form of pleuro-pneumonia of a very low type, terminating in abscess. About a week before his death, he expectorated about half a pint of most offensive purulent matter. After this his symptoms became aggravated, and expectoration of a similar character, but less profuse, continued until his death. The autopsy showed the left lung to be in a very advanced state of disease. The lower portion of the superior lobe and the whole of the inferior lobe were in the stage of grey hepatization. In the posterior aspect of the superior lobe there was a large irregular cavity filled with grumous blood.

The other fatal case occurred in a petty officer of the Encounter, who had long suffered from ague, diarrhœa, rheumatism, and bronchitis. His last seizure commenced with rheumatic pains of a somewhat severe character, referred to the shoulders and knees, and increased in severity at night. These after some little time entirely ceased, but were succeeded by bronchitis, upon which diarrhœa supervened, and reduced him to such a degree that he died quite worn out, and in an extreme state of emaciation.

Thirty-nine men were invalided for phthisis, and ten died. The surgeon of the Euryalus, on board which ship there were two cases of hæmoptysis and twelve of phthisis, one of which died, considers the exciting cause of the disease to have been foul air emanating from between the timbers of the ship, through the ventilating apertures opening on the lower deck instead of under the hammock nettings outside the ship. There can be little doubt of the deleterious nature of such a system of ventilation, and as little question of the possible share it may have had in exciting to activity the latent germs of pulmonary disease; but it is more likely that these cases

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of phthisis were induced mainly by the generally deteriorating influence of the climate and service in China, than by local causes alone. The climate of Yokohama he thinks favourable to consumptive patients. He says, "Phthisis does not appear to be prevalent at Yokahama, either among the Japanese inhabitants or the European settlers. On the contrary, I have every reason to believe that they are remarkably exempt from it. That the climate is not inimical to it, is clear from the fact that these cases improved in general health and gained in flesh in a remarkable manner at the Civil Hospital, with one solitary exception, the man who died."

Inflammation of the tonsils, terminating in gangrene, proved fatal in the person of a quartermaster of the Sphinx. He was a man of a very depraved habit of body, his constitution being completely broken down by constant dissipation. He presented himself with what was considered at the time to be a simple case of sore throat, but in a few days an abscess formed in the left parotid gland, which opened and discharged freely into the mouth. The neighbouring tissues became involved, and the tonsils were so swollen and ulcerated as very much to impede deglutition. The ulcers took on a phagedenic action, and the pain endured in the attempt to swallow became so great, that he refused nourishment almost altogether. He ultimately died from the combined exhaustion of irritation and inanition. On post-mortem examination of the body, the soft palate and tonsils were found to be in a state of complete disorganization; the greater portion was gone, and what little was left was in such a state of decomposition as to break down under the forceps. The whole of the pharynx was in a similar state of disease.

Diseases of the Organs of Circulation.—There was a considerable increase both in the ratio of cases and of invaliding under this head compared with the previous year, but they caused no loss to the service by death. Amongst those invalided were two cases of aneurism. One occurred in the person of a marine of the Pearl, the popliteal artery being the seat of disease. After an unsuccessful attempt at cure by flexion of the leg upon the thigh, the femoral artery was ligatured in Scarpa's triangle. The patient did well as far as the operation was concerned, the ligature coming away on the twenty-eighth day. During the progress of his recovery, however, active symptoms of disease of the heart set in. He was seized with severe pain in the cardiac region, with tendency

tendency to syncope, and irregular action of the heart. These symptoms continued, and were associated with a systolic bruit of over the base of the heart, not always, however, very distinct. The diastolic sound was sharp and jerking. This condition was referred to anæmia, and he in some measure recovered from it, but on account of the general state of his health it was ultimately found necessary to invalid him.

The other case was one of aneurism of the aorta. The subject of it was a marine of the Euryalus, who had had an attack of paralysis some years before, and several minor attacks afterwards. The symptoms indicative of the disease for which he was invalided on the present occasion, were palpitation upon using the slightest exertion, accompanied by giddiness and distension of the right side of the neck upon stooping. A distinct rough rasping bruit was heard over the course of the ascending aorta; the heart's sounds were clear and distinct under the left nipple, but over the aortic valves the second sound was muffled by the aneurismal sound.

Two cases of disease of the heart were accidentally discovered in this vessel. One was in the person of a marine, who was placed on the sick list labouring under a severe and acute attack of dysentery. During his convalescence, he represented that he had been for some months suffering from occasional fits of dyspnœa, which came on more especially at night; and that he also had a dry cough, and violent palpitation upon making the slighest exertion. On examination, it was discovered that the pulsations of the subclavian and carotid arteries were unusually perceptible, and a distinct bruit was heard under the left nipple, synchronous with the second sound of the heart. The other case occurred in the person of a petty officer, who came under examination consequent upon his application for re-entry for continuous service. A loud bruit was heard with the second sound over the apex of the heart, and over the aortic valves. The man had had an attack of acute rheumatism some years previously, and had ever after been subject to palpitation.

Diseases of the Alimentary Canal.—There is a very great decrease not only in the proportion of cases of disease coming under this head, but in the mortality as compared with the preceding year. The decrease in the ratio of cases is nearly equal to 200 per 1,000 of mean force, and the decrease in the death-rate is as much as 32·6 per 1,000. The decrease of mortality, however, is by no means owing to the less virulent

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virulent nature of the more severe forms of disease that presented themselves, but almost altogether to the smaller number of cases that were under treatment; for it will be observed, on referring to Tables 1 for 1862 and 1863, that the proportion of deaths to cases is nearly the same. As in the previous year, so in the present, about one-half of the cases of cholera terminated fatally; and the deaths from dysentery were in both years in the proportion of one to about five or six cases. Much of the immunity from these fatal diseases enjoyed by the squadron during the present year was doubtless owing to the circumstance of its being chiefly employed in Japan, and consequently removed from the deleterious influences to which it was exposed in 1862, when the squadron was actively employed in the different rivers in China.

There was a fatal case of enteritis in the Leopard. It occurred in the person of a drummer of the marines, who was placed upon the sick list complaining of cramp in his bowels and right side. The bowels were confined. The constipation was speedily removed, and diarrhœa took its place, with but little accompanying pain at first. Pain, however, speedily set in, and was much increased on pressure. On the ninth day after being placed on the sick list his symptoms during the night suddenly assumed a severe form. The surface of the body was covered with a clammy perspiration, the extremities were cold, the pulse very rapid and weak, and the respiration hurried. He appeared to be suffering much pain. The abdomen became tympanitic. Every means employed proved of little use; he gradually sank and expired in the morning, four or five hours after the onset of these severe symptoms. On post-mortem examination of the body, the small intestines were found to be much congested, the upper third of the jejunum and lower two-thirds of the ileum especially so. Peyer's patches were very much congested, and covered with a pulpy gelatinous-looking matter; but no ulceration could be detected.

In the Encounter, a seaman died from invagination of about three inches of the small intestine. The symptoms from the first were indicative of intussusception, which was diagnosed. Towards the close of the case, the matters vomited were stercoraceous.

There was a death from enteritis in the Reynard, and another from peritonitis in the Centaur, but there is nothing of particular interest in either of them. In one of the gunboats also, a death occurred from what is termed inflammation

tion of the bowels, but there are no particulars with regard to it.

Dysentery and Diarrhœa.—One hundred and forty-one cases of dysentery and 1,426 cases of diarrhœa were under treatment throughout the year. Of these, twenty-seven cases of dysentery and six of diarrhœa proved fatal. The treatment of each case of dysentery on board ship and in hospital averaged six weeks, while each case of diarrhœa only averaged from seven to eight days.

There were eighteen cases of dysentery and 147 of diarrhœa in the Euryalus. Of these cases of dysentery, fifteen occurred during the Lady quarter of the year, and nearly all were the result of the Kahding Expedition, in which the men were engaged in the previous year, and which has been fully recorded in the Statistical Report of the Health of the Navy for 1862. With reference to the treatment of this disease, the surgeon of the Euryalus has the following remarks :—

"I have found ipecacuan to be one of the most efficacious remedial measures in this disease. I give it in two- or three-grain doses, made into pills with the extract of gentian, and usually combined with a fourth of a grain of opium. If there are any signs of hepatic obstruction, I add a few grains of blue pill, or the mercury and chalk powder. In some of the most severe cases, I have given five grains of ipecacuan every two hours, but I have never been obliged to exceed that quantity. This plan of treatment must of course, like every other, be assisted by local depletion with leeches, and warm hip-baths. The drug undoubtedly acts either directly or indirectly on the liver, independently of the skin. Under its influence, the distressing tenesmus and straining quickly cease, and the stools become copious, liquid, and bilious. When these results have been achieved, a mild astringent, such as opium and chalk, must be substituted, otherwise the treatment will be of no avail. Before I adopted this plan, which is a modification of Twining's, I was in the habit of using calomel and opium with considerable success, but the objection to that mode of treatment was the debility and cachexia which remained after the disease had been subdued. These measures of course are of no use in the ulcerative stage of the disease; they do more harm than good."

He draws particular attention to a case recorded in the journal as an example of what medical men are in the habit ordinarily of calling "chronic diarrhœa," because no blood can be discovered in the evacuations. Such cases, however, are, as he says, no other than modifications of chronic dysentery. In this instance the disease was originally contracted at Shanghai. The following is a brief outline of the case with

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with the appearances discovered after death. The patient, a light-haired, strumous-looking lad, was placed on the sick list on the 20th of January complaining of relaxation of the bowels, accompanied by a considerable amount of straining, but no griping. The stools, which were rather scanty and imperfectly tinged with bile, contained mucus but no blood. He had been troubled with nocturnal diarrhœa for some time. On the 30th he had not improved in the slightest degree; the stools, which were of the consistence and appearance of pea-soup, were most frequent at night; there was abnormal dulness over the right hypochondrium. On the 26th of February he was daily getting worse; both feet were œdematous; emaciation was considerable; pulse weak, 100; nocturnal diarrhœa not in the least abated. On the 18th of March emaciation was daily increasing. There was now a considerable amount of fluid in the peritoneal cavity; the abdominal veins were injected; there was no tenderness anywhere over the abdomen; the tongue was dry and red over the tips and edges. On the 30th of March he was exceedingly feeble and weak; there was much irritability of stomach and occasional vomiting; the mouth was raw and covered with aphthæ; he was continually going to stool; the pulse was very weak. On the following morning it was apparent that he was sinking; in the evening he suddenly became insensible, and shortly died. The following is the report of the autopsy, made twelve hours after death:—

"*External appearance.* Extreme emaciation; hæmorrhagic patches over the abdomen and thighs; slight œdema of feet and ankles.—*Head.* Skull abnormally thin; effusion of serum in the sub-arachnoid spaces and ventricles to an unusual extent.—*Chest.* A large quantity of serum found in the left pleural cavity; left lung healthy; right lung solid and adherent throughout to the parietes of the chest; effusion in the pericardium; heart healthy.—*Abdomen.* Considerable effusion of serum into the peritoneal cavity; liver very much enlarged, its end extending three inches below the false ribs, and encroaching upwards upon the right pleural cavity, and compressing the right lung. The parenchyma was found to be in a state of fatty degeneration, gall-bladder distended with dark bile; mesenteric glands enormously enlarged, and presenting upon section the appearance of tubercular deposit; spleen enlarged and adherent to the diaphragm; capsule thickened and unusually tough in structure.—*Stomach.* Healthy.—*Duodenum.* Mucous coat abnormally rugous and thickened; in the transverse portion of it, one part was found constricted as if ligatured, and around the constriction the mucous membrane was very much thickened by dysenteric deposit, in which the ulcerative process had been going on apparently for some time; there were small circular ulcers with elevated edges, and cicatrices

cicatrices of others that had healed. Above that constricted portion the gut was very much distended by the accumulation of its contents. With the exception of slight hyperæmia, the jejunum was comparatively normal. The ileum was found very much altered by a similar diseased action to that of the duodenum, but in a much greater degree. There were no less than nine separate constrictions of that gut, and corresponding ulcers in which the process of repair had been more or less going on; some of the ulcers in this region, however, presented a sloughy aspect. The mucous membrane of the cæcum was livid, and also thickened by dysenteric deposit. Numerous white deposits resembling tubercle, varying in size from a pin's head to that of a pea, were seen in this portion of the large intestines. The whole of the colon presented in its inner coat small circular ulcers similar to those seen in the ileum. The rectum was also constricted like the duodenum in one spot, around which were numerous ulcers, some of which were sloughy; numerous white tubercles also were found here, similar to those seen in the cæcum. The kidneys were healthy. Other organs not examined."

The pathological changes in this case seem to have been so modified by the marked tubercular diathesis which the boy possessed, that they can hardly be considered typical of what is ordinarily known as chronic diarrhœa, nor indeed were the symptoms during life very illustrative of that form of disease. The most fatal form of chronic diarrhœa that occurs in China is so insidious in its approach, that it often advances to what is more commonly known as dysentery before its true nature is recognised, or its presence even observed. Among the civil community on shore it has been noticed to commence so gently and imperceptibly, so entirely without uneasiness, the appetite continuing unimpaired, and the general functions of the body acting so healthily to all appearance, that although the bowels may have been moved rather more frequently than usual for days and even weeks together, the person has pursued his ordinary avocations utterly unconscious of anything being the matter with him. At length some slight irregularity in diet, or thoughtless expose to sudden atmospheric changes, induces a more active form of the disease: a few more stools than usual with some attendant pain, and an amount of debility out of proportion to the nature of the attack, draw his attention to his condition, and probably induce the reflection that for some time back his bowels have been more than usually irritable. Even then, however, the medical man may not be called in; the patient may go on treating himself until progressing debility and increased urgency of the symptoms render medical advice imperative, and it is found when

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when too late that the disease has advanced to disorganization of the bowels, and that immediate removal from the climate is the only proceeding likely to prolong life. Marasmus, consequent upon the changes which have taken place in the mesenteric glands and intestinal lymphatic system, usually carries the patient off at last. In this form of disease, besides the lesions commonly found in dysentery, the ileum is almost invariably found to be affected.

The greater number of the cases of diarrhœa that occurred in the Euryalus were admitted on the sick list in the month of September, and were attributed by the surgeon to the impure nature of the water supplied to the ship's company.

There were nine cases of dysentery and thirty-six of diarrhœa in the Severn. The cases of diarrhœa were tolerably equally distributed over the different quarters of the year, but nearly all the dysentery occurred in the Christmas quarter after leaving Trincomalee. Some of them were of considerable severity, but they occasioned no loss to the service, either by death or invaliding.

Only one case of dysentery appears in the returns from the Leopard, which vessel was almost altogether employed in Japan, chiefly at Nagasaki. Eighty-eight cases of diarrhœa, however, were placed upon the sick list, some of which were doubtless of a dysenteric character, as they were exceedingly tedious in their cure. The fatal case of dysentery that appears in connection with this vessel occurred in the person of a petty officer, who having been invalided for rheumatism, to which he had been long subject, was waiting in the Princess Charlotte at Hong Kong for an opportunity to return to England. While there he was seized with acute dysentery and discharged to the Naval Hospital: there the disease ran steadily to a fatal termination. The Deputy Inspector General* of the hospital makes the following observations on this case:—

"On examination of his stools, immediately after his admission, they were found to be unmistakeably those of acute dysentery. Calomel and opium, and opiate enemata were prescribed, as is my usual plan in acute dysentery, but in this case with very little benefit, and the patient gradually sank. I mention his case more particularly, because it has been very unusual for the first attack of acute dysentery to prove fatal in my practice, and this man stated that he had never had it

* Dr. George Mackay.

it before, although he had previously served a commission in China, in Her Majesty's ship Calcutta; but he acknowledged having had several persistent attacks of diarrhœa in that ship. Another peculiarity of his case was, that he was never completely brought under the full influence of mercury, although it was administered regularly every four hours for eighteen days, being only discontinued two days before the patient's decease, when all but palliative treatment was evidently useless, and would only have unnecessarily distressed him."

The fatal result in this case was doubtless in some measure attributable to the amount of serious organic disease under which the man laboured irrespective of the dysentery. Post-mortem examination of the body, besides revealing extensive ulceration of the cæcum, showed cirrhosis of the liver, adherent pericardium, with hypertrophy of the heart and disease of the mitral valves.

There were seven cases of dysentery and thirty-one of diarrhœa in the Odin. Most of the cases of diarrhœa, however, were of a dysenteric character. The surgeon says: "But for the absence of fever, and the characteristic muco-sanguineous stools of dysentery, they might, from their persistent nature, have been classed under that head. They were treated much in the same manner as the dysenteric cases." With regard to these latter the following observations are made: "Seven cases of dysentery appear in the synopsis, and of these only one was sent to hospital. One of the cases occurred in the person of a warrant officer, in whom the disease presented itself in the acute form. He was therefore treated in the first instance with half drachm, and subsequently scruple, doses of ipecacuan, preceded by a large opiate draught, and by the application of a mustard cataplasm to the epigastrium. By such measures the more urgent symptoms were speedily checked, and a mixture formed from the tincture of opium, dilute sulphuric acid, and decoction of cinchona, completed the cure. The other cases that presented were treated much in the same way, and with the same result." This medical officer was in the habit of prescribing, in the more severe forms of dysentery, from two scruples, and even to a drachm, of ipecacuan powder, at intervals of from six to eight hours, preceded by a draught containing from thirty to forty minims of tincture of opium. This treatment he says was attended with the best possible results: the alvine evacuations, previously muco-sanguineous, gradually became feculent, the abdominal pain ceased, the appetite returned, and in a few days the dysenteric symptoms entirely disappeared. Before administering the first dose of ipecacuan, a sinapism was usually

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usually applied to the epigastrium, to obviate the tendency to vomiting induced by the drug.

There were fifty-nine cases of diarrhœa in the Barrosa, but no mention is made of them by any of the medical officers of the ship: they do not appear to have been urgent, the treatment of each case averaging only from four to five days. Much of the disease occurred in the Midsummer quarter of the year, when the vessel was employed against Malay pirates on the coast of Borneo.

There was a single case of dysentery in the Encounter, and thirty-six cases of diarrhœa. Most of the latter disease occurred in the Midsummer and Michaelmas quarters of the year, when the vessel was at Yokohama, and a few of them were severe. In the latter quarter they were somewhat choleraic in character, cholera being prevalent on shore at the time. The treatment of each case of diarrhœa averaged rather more than eight days. The case of dysentery was ten days on the sick list. In Table 4 a fatal case of dysentery appears in connection with this vessel. It occurred in the person of a seaman who had been sent to the hospital ship at Shanghai with that disease in the previous year. Despite every variety of treatment and a liberal use of farinaceous diet, beef-tea, and wine to support his failing powers, he continued steadily to sink until the time of his death. The fluid evacuations were almost persistently sanguineous, with frequently discharged shreds of abraded mucous membrane.

There were eight cases of dysentery and thirty of diarrhœa in the Scout. The following observations with reference to them are made by the surgeon of the vessel:—

"All the cases of this disease (dysentery) occurred in China, at Hong Kong and Whampoa. They were all well-marked cases, the symptoms being very similar, but the disease was by no means so severe as that met with at Shanghai; it was more inclined to become chronic than to run a rapidly fatal course. The worst case was that of a stoker, who was attacked when on leave at Hong Kong, where he had been drinking to excess for two or three days, and sleeping in the open air. In this and the other cases that remained on board, the following treatment was adopted: the patient was kept in bed, and put upon rice and arrowroot diet. Ipecacuanha was given in five-grain doses, with a quarter of a grain of opium, every one, two, or three hours, according to the urgency of the symptoms. A dose of castor oil was generally given at first and repeated occasionally; the abdomen was covered with a large poultice spread thin and frequently changed. This application always gave relief, and is preferable to fomentations, the heat being more equable. Oatmeal was used in these cases, but bread would no doubt be better. The result of this treatment was satisfactory; the patients recovered perfectly and

and speedily, the longest being on the sick list thirteen days. The two cases sent to hospital were treated with calomel and opium. They both recovered, but their convalescence was slow; they were absent from the ship two months, and were only discharged to this ship on their leaving for England. Most of the cases of diarrhœa also occurred in China. Some of the attacks were tedious, and appeared to depend on derangement of the liver. In these the stools were bilious and frothy, and the patients complained of griping pain in the abdomen. Sulphuric acid and opium, with peppermint, was found useful, followed by tincture of bark and quinine. Astringents did not answer well. If they did check the diarrhœa it was almost sure to return. Tannic acid was the best of these."

There were two cases of dysentery and 103 of diarrhœa in the Cormorant. Both attacks of dysentery occurred in the same person, a man who joined the service at Shanghai. He was discharged to duty in an improved condition, but soon re-appeared, and was under treatment when the report on him was made. With respect to the cases of diarrhœa, the following interesting observations are made by the surgeon* of the ship:—

"Of diarrhœa we had a very large number of cases, the greater portion of which occurred at Shanghai and Yokohama, and were, in my opinion, attributable in a great degree to the use of impure water in both places. The water supply for the war vessels at Yokohama is taken from a basin or reservoir standing close to a cliff, the top of which is manured several times in the year with liquified excrement, and much of this must necessarily percolate into the water contained in the rude basin, which is, moreover, studded pretty plentifully with vegetable matter in every stage, from the embryonic to the last condition of decomposition. From this receptacle the water is led through a series of wooden conduits for a distance of about a quarter of a mile to the side of a canal, and here the water tanks get supplied. In their course these conduits pass beneath the sewers of a considerable sized Japanese village, much of the filth of which no doubt reaches and mingles with the water.

"Soon after our arrival at Shanghai, towards the end of January, in accordance with a custom adopted for some time previously by war vessels lying there, an alteration was made in our supply of water. It was directed that one quart of distilled water should be allowed daily to each man for drinking purposes, but for all culinary operations, &c., the water of the Wongpoo, the river in which we were lying, should be used; and this water carried with it an immense amount of sediment, and wore somewhat the appearance of pea-soup. It was further directed that, previous to being used, it should be allowed to stand for some time, and have a small quantity of alum dissolved in it, to hasten

* Surgeon R. Eustace.

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hasten the deposition of the sediment. Now this same river Wongpoo courses through a very extensive alluvial tract, and drains and irrigates a space of more than 2,000 square miles, which, for fertility, perhaps stands unrivalled on the globe; and although much of this wondrous fertility is doubtless due to the original alluvial basement, yet a good deal is also due to the admirable manner in which the whole is irrigated, being traversed throughout by a complete network of streams, every one of which is connected with the Wongpoo. But, besides the above, it is also deeply indebted for its amazing richness to the mode of manuring the Chinese adopt—human excrement liquefied by water and poured in this semi-fluid state over the land; and it is equally beyond all question, that the more fluid portions of the manure filter through the soil, and, reaching the nearest stream, flow from thence into the Wongpoo river. Moreover, the Chinese in this province have a strange method of disposing of their dead. Instead of burying them, as we do, or burning them, as the Japanese do, they merely carry them out for a little distance and lay them by a roadside, or by the margin of a creek, and many of these creeks are bordered in this ghastly fashion for miles; and I have frequently observed the fluid products of decomposition trickling down into the stream, and thus carried into the Wongpoo. Some of the creeks, also, that traverse the walled city are margined in some places by rows of public necessaries, and flow on sluggishly, freighted with abominations, into the area of anchorage, where there are generally about 200 merchantmen and more than 2,000 junks and sampans, all the excretions of whose occupants are cast into the river. . . . . Some suppose that the rapid run of the river carries all this swiftly past; but they seem to forget that the Wongpoo is subject to a strong tidal influence, and that the Soodow river, laden with the débris and offal of the Chinese Birmingham, debouches here, giving rise to the so-called 'Chow-chow' water, and an almost constant double current. It was no doubt a wise provision to direct that the water should be boiled previous to being used; but this, I presume, resulted from observing how those wonderful people, the Chinese, who huddle themselves together in crowded masses, reside in the midst of abominable stenches, use the Wongpoo river water in their everlasting drink, tea, and, notwithstanding all this, still continue to exist."

The total days' sickness from these cases of diarrhœa gave an average of between five and six days' treatment to each case. There was no loss to the service from them, either by invaliding or death.

There were fourteen cases of dysentery and fifty-four of diarrhœa in the Ringdove. Two of the cases of dysentery proved fatal. These diseases were tolerably equally distributed over the different quarters of the year; but, if anything, they prevailed rather more in the Michaelmas and Christmas quarters than in the first two quarters. During the last half of the year the vessel was almost altogether stationed

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stationed at Shanghai, a locality in which the medical officer* states the ship's company invariably suffered from diseases of a more or less urgent character, attributable, in his opinion, either to the poisonous nature of the air breathed or of the water drunk. He corroborates the statements made by almost every medical officer who has offered an opinion upon the river there, and says:—"Simmering under a broiling sun, this river ebbs and flows, teeming with organic remains in various stages of decomposition, arising from the drainings of paddy fields manured with human ordure, the outscourings of the filthy Chinese towns on its banks, the drainage of a very large foreign settlement; the fæcal discharges of an enormous floating population, and the dead bodies which, pretty numerous, float on its surface. . . . The evil effects of using such water was to a certain extent remedied by advising and allowing tea *ad libitum* for drinking purposes." The cases of diarrhœa in this vessel appear to have been of some severity, their treatment averaging about eight days to each case; each case of dysentery treated on board was about thirty-seven days on the sick list.

In the Vulcan, there were fifty-three cases of dysentery and 111 of diarrhœa. The cases of diarrhœa were tolerably equally spread over the different quarters of the year; but almost all the dysentery occurred at Shanghai in the Michaelmas and Christmas quarters. The surgeon† of the Vulcan says:—

"In September, eighteen cases of acute dysentery occurred. They were all placed under the same medical treatment. Ipecacuana was administered in three-grain doses, every three hours, with great benefit and relief to the patients. The discharges per anum gradually assumed a more healthy appearance; tenesmus ceased altogether in a few days, and the evacuations contained less blood. Though the ipecacuan produced nausea and vomiting at first, yet the patients were soon able to tolerate it. Port wine was freely given to every patient with this disease; animal food was stopped, and rice, sago, and arrowroot substituted. In the chronic form of dysentery, ipecacuan appeared only to have an occasional beneficial tendency in relieving the tenesmus, which, together with slimy and bloody evacuations, soon reappeared. Diarrhœa was very prevalent during the month of September, and nearly every case was succeeded by dysenteric symptoms."

In the Acorn, permanently stationed at Shanghai, there were eight cases of dysentery and thirty-three of diarrhœa. The

* Assistant Surgeon James C. Eastcott. † Surgeon C. R. Godfrey.

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The latter were exceedingly obstinate, and were associated with febrile symptoms, respecting which the medical officer* remarks:—

"The close affinity which appears to exist between the continued or intermittent forms of fever and diseases of the alimentary canal has often been noticed, and their gradual growth and development, contemporaneous with the constitutional as well as local irritation, which is the result of climatic blood-poisoning, may be observed by any one residing in this place for the summer months. In such cases, a simple febricula may first be observed, with a foul tongue and indigestion, or a slight diarrhœa. After a time the patient recovers, but if still exposed to the influences at work in this river he may shortly return with a severer attack of fever, followed or attended by diarrhœa or dysentery. Dysentery is often preceded by a febrile attack, or the patient has complained of constitutional disturbance more or less acute. Alternations between diarrhœa and intermittent fever have also been observed, and the febrile disturbance is generally found to subside as the local disease is established. It is in such cases chiefly that, during the past year, a fatal termination took place. The nondescript character of disease round which are to be found grouped so many various symptoms is, I believe, explainable by referring them to one source; viz., the existence of a vitiated state of the blood and secretions, produced by climatic influences and accompanied by constitutional or local irritation, as in any case of poisoning. With such views the correct indication would be to improve the secretions, and to fortify the system by means of tonics and a nutricious diet. It is by this principle that I have been guided in the early treatment of such cases; but as in some of them the unfavourable symptoms recurred with increased severity, in spite of remedial agents, their recurrence must be attributed to the malarious causes which first produced them, and it can only be by a removal from those causes that exemption may be expected to be secured from their fatal effects."

It is very interesting to observe the unanimity with which the different medical officers bear testimony to the injurious effects of using the polluted waters of the Wongpoo river for drinking purposes, and its possible influence in multiplying the cases of diarrhœa and dysentery which prevail in that locality.

Cholera.—There were fifty cases of cholera under treatment in the squadron, and of these twenty-six proved fatal.

A marine of the Euryalus, who was severely wounded in head and face by a portion of a ten-inch shell, in the action at Kagosima, and in whom, in consequence of repeated hæmorrhage,

* Assistant Surgeon George W. J. Sutherland.

hæmorrhage, it was necessary to tie the common carotid artery, was progressing most favourably towards recovery, when he was suddenly seized with cholera, at Yokohama, where the disease was prevailing epidemically, and died in twelve hours.

Two cases of cholera appear in the returns from the Severn, but as no mention whatever is made in reference to them, and the loss of service from both cases was only three days, it is to be presumed that they were not examples of true Asiatic cholera.

In the Leopard there were twelve cases of cholera, and of these, six had a fatal termination. All the disease was contracted in the Michaelmas quarter of the year, when the vessel was stationed at Nagasaki, in Japan, where it was prevailing epidemically amongst the native population. The first case occurred on the 2nd of August, in the person of a gunner of the Royal Marine Artillery, in whom there appeared, at one time, an attempt to rally from the attack. The disease, however, recurred, and the man ultimately sank exhausted on the seventh day. On the day of his death, another gunner belonging to the same corps, who had been on the sick list with obstinate diarrhœa from the 13th of the previous month, was seized with violent choleraic symptoms, from which, however, he recovered. On the 3rd of August a petty officer was seized; he was recovering, when he was carried off by an erysipelatous attack on the head. On the 4th, two seamen were attacked; one died on the fourth day, the other recovered, and was discharged to duty after being twenty-seven days under treatment. The next case occurred on the 5th, when a seaman was attacked, and died on the 8th. On the 6th, another seaman was seized, but recovered, and was discharged to duty on the 20th; and on the 9th, a seaman was attacked, and died on the same day. No case occurred after this until the 6th of September, when a stoker was attacked; he recovered. On the following day the ward-room steward was seized, and also recovered; and on the 8th a ward-room officer was attacked, and died the same day. The last case occurred on the 13th of September, in the person of another ward-room officer, in whom, however, the disease was comparatively slight, and he recovered.

The surgeon of the Leopard says, with reference to these cases:—

"Situated as the ship was during the time, off the town, and the wind blowing nearly always from the direction of the town, unable

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to leave the anchorage on account of the unsettled state of affairs on shore, it was not to be wondered at that the disease should attack the crew. There was no general leave, yet the stewards and others were in the habit of going on shore on duty, and it was ultimately deemed prudent to detain even them on board. The officers were not included in this restriction. On the 10th of August the ship was taken outside the harbour, under steam, and kept under weigh during the day, returning to the harbour in the evening, anchoring well down the harbour, and as near as possible to the side opposite the town. Various remedies were employed, but the grain doses of opium every hour, with hot baths and friction, seemed to be attended with the best results. When the stomach would retain it, a mixture containing ether, opium, and quinine was found beneficial. All the cases were kept on the main deck, and as far as possible from the other sick. Of the nurses who attended upon them, one only was attacked with the disease, and he was seized on the day after he had been attending on a messmate; he recovered. There were several cases of cholera amongst the merchant shipping in the port, but none among the Europeans in the foreign settlement at Oora, nor in the bungalows on the hills around and above the settlement."

A case of cholera appears in the returns of the Odin. It occurred at Bombay in the person of a seaman, and was of a very mild character. He was discharged to duty on the fourth day after his admission to the sick list.

Two cases of cholera appear in connection with the Scout. They both refer to one individual, a seaman, whose case is somewhat singular. He had gone on shore on forty-eight hours' leave. He went up to the town of Whampoa with some of his messmates, but soon left them, and was not seen again until four days afterwards, when one of the men of the ship found him lying in a foul ditch outside the town of Whampoa, half buried in filth. He had fallen off a small wooden bridge in attempting to cross the ditch. He was drunk at the time, and was unable to give a distinct account of how he got to the place where he was found, but from the account he did give he must have been in the dirty mud for nearly two days. When found he was quite insensible and cold, and showed very little signs of life. He was immediately taken on board, and on his getting to the ship had partially rallied. He was unable to articulate, the surface of the body and the tongue were cold, the countenance sunken, the eyes hollow, and the pulse imperceptible at the wrist. He was washed, placed between blankets, with bottles of hot water to his back and extremities, and stimulants were administered. On the following morning (9th November) he continued in a state of collapse, was insensible, but took drink when offered to him; the surface was cold, the fingers corrugated

corrugated, and he had been purged, passing copious water stools under him. Vomiting and purging continued for some days, but reaction gradually set in; he became sensible, and his voice audible, although very weak. This state was followed by tolerably high febrile symptoms, which in their turn were succeeded by the formation of numerous abscesses over the arms and legs, some of which were of considerable size. His sight was also exceedingly defective; he was unable to see in bright daylight, and the pupils were much dilated. In this state he was sent to the hospital at Hong Kong, on the 28th of November, but returned to the ship on the 4th of December, as she was about to leave for England. The old abscesses were still discharging and several others had formed; his sight had not improved. He was very weak, but his appetite was good, and his bowels regular. He slowly regained strength under the nourishing and stimulating treatment to which he was subjected: his sight improved, and on the 22nd of December he was discharged to duty.

There were two cases of cholera in the Centaur, both of which proved fatal. The first occurred in the person of the ward-room steward, who went on shore at Shanghai, and was almost immediately attacked with cramps in the arms, legs, and abdomen. The case was one of great virulence, and terminated fatally in three hours and a quarter. The other case occurred at Yokohama, about a month afterwards, in the person of a marine who was employed as guard on shore, where he was seized with violent cramps of the abdomen and extremities, accompanied with profuse purging and vomiting. At one time he seemed to rally a little, but speedily became worse again, and from the first there was complete suppression of urine. He died late on the evening following the day on which he was attacked.

A single, very virulent, and fatal case of cholera occurred in the Perseus at Yokohama. The subject of it was a stoker, a Krooman, who it appears had been suffering from diarrhœa, and who was employed coaling ship on the day on which he was attacked. Being much heated with the work, he had had several buckets of water thrown over him, and to this cause the medical officer of the ship attributes the sudden and complete prostration which characterised the attack. From the first the pulse was imperceptible at the wrist, the surface of the body was cold and clammy, and both the tongue and breath were cold. He passed constant rice-water stools, which came away involuntarily, but he had no vomiting. He never

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never rallied in the least, but sank exhausted on the following day. Cholera was prevailing epidemically at Yokohama at the time, and causing much mortality amongst the native population.

There were three cases of cholera in the Rattler, two of which proved fatal; they occurred during the Michaelmas quarter of the year, and were, it appears, contracted at Nagasaki.

There were seven cases of cholera in the Cormorant, only one of which proved fatal. With reference to these cases, the following remarks are made in the journal of the ship :—

"Of cholera we he had seven cases, together with several cases of choleraic diarrhœa, which are included under the head of diarrhœa. We reached Shanghai on the 19th of July, and on our arrival heard that cholera was raging to an alarming extent, the mortality of the Chinese population alone varying from 1,000 to 2,000 daily. All leave for the men was suspended, the use of fruits, &c. forbidden, and solar exposure as far as possible avoided. The heat was very great and very depressing there at the time, and rumours of many deaths from coup de soleil reached us. On the morning of the 24th of July three cases of cholera appeared, two of which were very severe: they were sent in a convalescent state to the Acorn Hospital Ship on the 31st of July, as we were about to proceed to sea. On the 1st of August, and while at sea, another case appeared in the person of an old quarter-master, the serious symptoms of which, however, soon subsided. We returned to Shanghai by the 5th of August, and remained there until the 13th, during which time, although cholera continued to rage with great violence and fatality on shore, we had no case. On the 13th of August we put to sea for Yokohama, and on the 16th another case appeared; on the 17th another, and on the 19th another, all of which were severe, and the two latter when nearly convalescent were discharged to sick quarters at Yokohama, where one of them, after being allowed to walk about, had a relapse, and subsequently died.

"The treatment adopted in most of the cases was a modification of that recommended many years ago by Dr. Stevens, and fallen, I believe, into unmerited desuetude, since of all the methods that have been tried, and few there are but have had their chance, this, I believe, is the only one that possesses the merit of a scientific and reasonable basis. The question whether cholera is contagious or non-contagious has long been a theme of controversy betwixt medical authorities; but however widely they may differ on this point, they are pretty generally agreed that the proximate cause of cholera depends upon the introduction of some poison to the system, which seems to have a very powerful affinity for the aqueous and saline constituents of the blood, and many regard the enormous evacuations so frequently present as efforts of nature to rid herself of the noxious matter. These efforts, however, are attended with a marked change in the constitution and consistence of the blood, which becoming much thickened is no longer capable of flowing with its wonted ease through

through its accustomed channels; hence, perhaps, the thoracic constriction, oftentimes the symptom most complained of, from the blood being unable to permeate the finer air-tubes of the lungs, and as a sequence of this condition, the nervous system, being deprived of its requisite supply of aërated blood, acts unequally and inordinately, producing cramp and spasm and irregular muscular contraction, at first in the most distant, but subsequently in parts nearer the centre. Now, if it be admitted that the cholera poison, whatever its nature may be, has this great affinity for salines, the most rational indication of treatment, apparently, would be to supply the requisite salines in abundance, which if retained in the stomach or digestive canal may excite or induce a kind of exosmosis of the poison, or, if absorbed into the blood, afford the very materials for which the poison has the strongest affinity. I am aware that some entertain the notion that the function of absorption is so completely arrested in this disease that the passage of saline fluids from the digestive canal into the circulation would be doubtful; but how far such a notion may be due to the fact of the ordinary remedial means having failed to produce their usual effects is perhaps a question; and, strangely enough, many of those who state that the absorbents are powerless, speak in the highest terms of the wonderful curative powers of calomel, and warn us gravely against the use of opium lest fatal stupor be induced!

"The cases treated in this vessel are too few to draw any inference from, respecting the merits of this mode of treatment. All that may be said of them therefore is, that most of them were treated in this way, and under disadvantageous circumstances, and they recovered, but whether *propter hoc* or *post hoc* others may determine. One circumstance, however, appeared to me to be very remarkable, namely, that this medicine was retained when almost everything else was instantly rejected by the stomach, and the patient considered the taste rather grateful than otherwise. While under its use the vomiting and looseness soon abated, and in some instances were at once arrested. Taking this latter fact into consideration I think it alone would warrant us in giving this plan, so long ago proposed, and so long disused, another trial, a fair and impartial one, and on an extensive scale.

"Since its first appearance the cause or origin of cholera has been, and is, a disputed question, but the result of recent physiological and pathological researches would tend to prove that it depends upon the introduction to the system of some decomposing organic matters in a certain state of change capable, perhaps, of exerting a catalytic action, whereby a small amount of poison may produce great changes, and fearful if not fatal results; and it would also seem that there is very little doubt that choleraic excretions in a certain stage of change are frequently the most prolific source of the outspread of disease, whether introduced in a gaseous form with the inspired air, or with water or other aliments, or with both."

The saline mixture prescribed by this officer was composed of one ounce of common salt, ten drachms of bicarbonate of soda, and one drachm of chlorate of potass, dissolved in twenty

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twenty ounces of water, and of this one ounce was given every half hour.

There were three cases of cholera in the Osprey, all of which terminated favourably. They were contracted at Shanghai at the time the disease was prevailing epidemically on shore.

In the Racehorse in the Michaelmas quarter of the year, while stationed at Shanghai, eight cases of cholera occurred, six of which terminated fatally. The mortality was confined to two messes, four stokers from one mess being carried off by the disease, and two seamen from the adjoining mess. In the latter instance one of the seamen had been an attendant on the other during his illness, and was in fact attacked with the disease while engaged in that duty. The first case that occurred was about two days after giving privileged leave to the ship's company. Most of the cases were of that class " in which after from one to six hours of characteristic vomiting and purging, often not to a great amount, the skin becomes cold and clammy, the countenance sunken, the voice almost gone, the restlessness great, the pulse almost imperceptible, and the respiration begins to be hurried and anxious."

In the month of January there was a single case of cholera in the Vulcan at Calcutta. It appears to have been of little severity, as no notice whatever is taken of it in any of the returns. The man, a mess servant, was nine days on the sick list for it.

With reference to six cases of cholera that were under treatment on board the Acorn Hospital Ship at Shanghai and of which one proved fatal, the medical officer remarks :—

" These cases were endemic, and with the exception of the fatal one did not present the aspect of rapid exhaustion and collapse which characterized the formidable epidemic of the previous year: indeed some of them might have been designated as cases of severe purging with vomiting, but without the coldness of extremities and shrunken features so peculiar and so unfavourable in the prognosis. Although the epidemic form of this disease is distinguished by its name of cholera, the local occurrence of the same complaint presents all degrees of severity, from a severe and short attack of diarrhœa with vomiting, and more or less constitutional irritation, to the developed Asiatic type, from which it is not often that patients recover. The last stages of several cases of severe and fatal diarrhœa which came under my notice this past year, presented in a marked degree the symptoms peculiar to cholera, such as exhaustion, pallid and shrunken features, and cold extremities; both these diseases appearing to be similar in kind but varying in degree only of severity. If similarity of symptoms indicate identity in their causes, a close affinity could be

be traced between several of the fatal cases of fever recorded, and cholera, and it is sometimes, in fact, at first difficult to decide their exact nosological classification in consequence of the occurrence of numerous symptoms common to both complaints, which under other conditions have well-marked differences, but which in this place appear by their joint action to produce a class of cases that could well be termed cases of climatic poisoning.

"The treatment of cholera is not at all satisfactory. Although stimulants are indicated for the support of the vital powers, I have failed to detect their efficacy in the great majority of cases. Anodynes I have observed to be powerless, in even large doses, in alleviating the permanent or paroxysmal pain, and in severe or fatal cases the rejection by the stomach of all ingesta appears to be beyond control. The tolerance of the system to large quantities of anodynes and stimulants indicates that the sympathetic system of nerves is insensible, from some cause or other, to their usual and well-known effect, or that the stomach, being more actively engaged in the eliminative than the absorptive processes, rejects these remedies without their being taken into the blood. Hot applications to the extremities with large sinapisms over the stomach appear to be of some benefit, by restoring the animal heat and the action of the skin. Of the saline method of treatment I have heard much, but have as yet no experience. Mercury is still used largely by medical practitioners, but without the best test of its efficacy—a diminution in the mortality from its use."

There seems to be little doubt that, in the present state of knowledge with respect to this disease, any hope of combatting it with success is limited to its earliest stage—that of the premonitory diarrhœa,—and it is to the fact that patients rarely present themselves to the medical officer until it has gone far beyond that stage, that the great mortality it occasions is attributable. As no amount of experience on the part of the men themselves, and no advice given them appears to be of the least value in inducing them to present themselves at an earlier period, it will obviously be the duty of the medical officer, in all localities where cholera is prevailing, to institute such measures as may enable him to obtain a knowledge of the general state of health of the individual members of the ship's company. For this purpose a modification of what is known on shore as house-to-house visitation might readily be established, a sanitary police, composed of the petty officers of the different messes, quietly organized, and such instructions given to those in charge of the head, as would effectually prevent a man labouring under diarrhœa from making repeated use of it, without being detected and reported to the medical officer. When cholera has already established itself on board, too much care cannot be taken to ensure that the choleraic discharges, whether from the bowels or stomach, shall be largely mixed

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mixed with the solution of the chloride of zinc, or other disinfectants, before they are thrown away, and that any clothing or bedding contaminated with such discharges should be destroyed; and it would be desirable to "flush" the head-"shoots," and those of the different water-closets in the ship which are much used, with some disinfectant two or three times daily. It seems hardly necessary to add, that where there is any doubt as to the purity of the source from whence the water supply to the ship is at such times obtained, all water for culinary or drinking purposes should be obtained by distillation.

Diseases of the Liver, &c.—There is a very considerable decrease in the ratio of cases of disease coming under this head, but the loss to the service both by death and invaliding was greater than in the preceding year.

There was a fatal case of hepatitis in the Scout. The subject of it was a sick-berth attendant, a discharged soldier who had served for twelve years in a cavalry regiment in India. He was a confirmed drunkard, and had had several serious attacks of disease, the result of his dissipated habits, on one occasion being seized with acute dysentery, and on another with inflammation of the liver. On the last occasion on which he was taken ill, he had gone on leave at Whampoa, and remained on shore for several days, during the whole of which he was drunk. On the day after he returned to the ship he was unable to leave his bed, and complained of severe pain in the right side, with tenderness over that part. He had vomited several times during the night, and the stomach continued to reject everything taken. He had a constant short cough causing increase of pain; there was much thirst, a hot skin, frequent pulse, and the tongue was thickly coated, and dry in the centre. As the disease ran on, dysenteric symptoms supervened, and the abdomen became tense, and painful on pressure. Retching was very frequent and distressing; there was low muttering delirium, and he lay on his back in a semi-conscious state. From this condition he rallied somewhat; he was able to retain fluid nourishment and stimulants, he talked rationally, and was very hopeful. Very soon, however, there was a return of all his worst symptoms, superadded to which there was great oppression of breathing, with exhaustion. The weather was unfortunately much opposed to him; the ship was at sea under steam, the lower deck ports closed, and in consequence of heavy rain the hatchways were covered. The thermometer stood at 96°. Under these circumstances it is not surprising that what little

little remaining strengh he had failed him, and he rapidly sank exhausted. There was no post-mortem examination of the body.

The obscure character of the symptoms of suppurative hepatitis, and the insidious nature of its approach were well marked in the case of a boy of the Rattler, who died of this disease in the Naval Hospital at Hong Kong. He was of a very spare habit of body, and was admitted to the sick list on the 17th of November 1862, labouring under ordinary febrile symptoms, apparently without any local complication. Three days afterwards the stools were slightly dysenteric in character, but this soon passed away. They were very frequent, however; the abdomen became tympanitic, and the febrile symptoms assumed a periodic character. During the month of December he seems to have varied a good deal in his symptoms, rallying and falling off alternately, but with a steadily progressing debility. Towards the end of the month a bedsore had formed on the sacrum, but this soon took on a healing action. On the 11th of January 1863 he was reported to be convalescing, and the sore nearly healed; and after this he was able to get out of bed and move about a little. On the 22nd he had some cough, and on the 28th, although this symptom was somewhat relieved, he was very weak, and greatly emaciated. On the 30th he had been purged frequently during the night, the evacuations being sanguineous, and he was very low, and slightly delirious. On the following day he was discharged to the Naval Hospital, where he died early next morning. During the whole period he was under treatment, no allusion is made to any symptoms referable to the liver. The following report of the post-mortem examination of the body is furnished by the Deputy Inspector General of the Hospital:—

"..... Effusion of fibrinous lymph over the peritoneal covering of the intestines, binding down the greater part of the jejunum and ileum into the pelvis, all the convolutions being firmly adherent to one another, and rendering the bowel almost impervious to the passage even of liquids through them. Great distension of the stomach, duodenum, and upper part of jejunum. Mucous membrane of the small intestine generally, congested, and in patches of a bright red colour. Mucous membrane of the cæcum and rectum slightly ulcerated. Transverse colon contracted. Spleen enlarged and abnormally softened. Liver very much enlarged, abnormally adherent to the diaphragm and adjacent organs, of a dark red livid colour. On cutting into it, two enormous abscesses were discovered, one in the right lobe and the other in the left, each about the size of a large cocoa-nut. The walls of the abscesses were well defined and hardened, and their contents creamy-looking light yellow pus. There

was

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was engorgement and partial consolidation of the lower lobe of the right lung."

Diseases of the Genito-Urinary Organs.—There was a very large increase in the ratio of cases of these diseases, as compared with the previous year; and the increase extends to the ratios of invaliding and of deaths.

There were three deaths from granular disease of the kidneys, in all of which there was associated disease of the heart, and there was a death from diabetes. An old quartermaster, the subject of inveterate constitutional syphilis, and who was invalided for ulceration of a serpiginous character, attacking the skin of the groin and abdomen, died on the homeward passage from uræmic poisoning, the result of retention of urine, consequent upon extensive disease about the neck of the bladder, and complete disorganization of the urethra in its vicinity.

Syphilis.—Venereal diseases were exceedingly prevalent in the squadron, and caused a loss to the service by invaliding of twenty-nine men. From syphilis alone the total number of days sickness on board ship and in hospital was 20,012, and the average number of men daily on the sick list from it was 54·8, which is in the ratio of 10·4 per 1,000 of mean force. Most of the disease was contracted in Japan.

In the Euryalus there were 158 cases of syphilis and fifty-four of gonorrhœa. With reference to these cases the following remarks are made by the surgeon of the ship.

"The number of cases of the complaint (syphilis) has far exceeded the number of cases contracted at Portsmouth and Plymouth whilst fitting out in 1862; whereas very few of the latter cases were followed by secondary syphilis, here there has scarcely been a sore which has not turned out to be an infecting one. In 1862 there were ninety-six cases of primary syphilis admitted under treatment: in 1863 there have been no less than 158 cases of primary syphilis, all of which, except twenty-nine cases which were contracted at Hong Kong, have originated at Yokohama. The disease, as it has appeared among the crew of this ship, has set at nought the dogmatic rules of Ricord and his followers. The common diagnostic mark of an infecting chancre has, in many cases, been entirely wanting. There were two cases of simple urethral discharge, without a trace of induration, which have since been followed by a roseolar eruption, and nocturnal pains in the subcutaneous surfaces of the bones. In these the course of the lymphatics of the penis and the inguinal glands were carefully examined, both at the time of the primary leison and subsequently, when the cutaneous eruption became manifest.

"There were several cases of simple sores, merely abraded surfaces or excoriations, not accompanied or followed by a trace of plastic exudation anywhere, which also proved subsequently to be infecting. They

They were followed in due time by the cutaneous eruption, by effusions into the joints, and by nocturnal pains in the fibrous tissues of the latter. When the plastic exudation has appeared, it has not invariably been found at the base and edges of the sore, as usually described by those who have written on the subject; on the contrary, it has been discovered to be thrown out in the course of the lymphatics to the inguinal glands, sometimes on the prepuce, sometimes at the root of the penis, and more commonly in the inguinal glands themselves. This deposit may be known, as Ricord justly remarks, by its cartaliginous feel, and by its elasticity and moveableness under the skin. As a rule, in the cases that have come under my notice here, the induration has appeared in the seat of the primary sore or elsewhere, almost at the same time that the other secondary symptoms have become manifest. It is undoubtedly then a secondary manifestation, and one of the evidences of that abnormal plasticity of the blood when tainted by the syphilitic poison. It has been asserted by some of the best authorities that phagedenic chancres are not followed by secondary syphilis. I have not found such to be the case here. Two cases of phagedenic sores have been followed by a pustular eruption, and by nocturnal pains in the bones. That the different varieties of sores are followed by different kinds of eruption is also disproved here.

"We have had under treatment almost every variety of chancre, certainly all those usually described by authors. We have had 'creeping' chancres; 'sloughing' chancres; 'phagedenic' chancres; the old 'Hunterian' chancre, with the cartilaginous button-like base; the 'simple' chancre, with the fretted surface, the abraded surface, mere cracks, and urethral discharges, all of which have been followed by secondary manifestations, in spite of the local application of nitric acid, and Ricord's paste in some cases, and the internal use of mercury in others; but we have had no psoriasis, lepra, or rupia; the only cutaneous eruptions that have hitherto appeared are the erythematous and papular, and, in a few cases, the pustular.

"Having implicit faith in mercury, I have used it in the majority of the cases, but finding that it had not the slightest influence on the progress of the disease, I have latterly not administered it until the secondary stage has set in. The preparations that I have used have been the iodide and bichloride internally; I have also employed inunction and fumigation extensively. I have been very successful in eliminating the poison from the blood by these means in healthy subjects; but in some of the cases, which were of a strumous diathesis, I have not been enabled to push the remedy sufficiently to cause the absorption of the plastic deposits which are the source of so much suffering and mischief in this disease. In the latter cases I have found the iodide of potassium in scruple doses to be of great service, which I have no doubt in large quantities causes absorption of the effused lymph, if one may judge by the rapid disappearance of the latter from the anterior chamber of the eye, in several cases of syphilitic iritis complicated with struma, which have been treated in this ship.

"Prostitution is an institution in Japan, and a source of a considerable amount of revenue to the government. At Yokohama there

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there is a large establishment called the 'Kan Kuiro,' where the prostitutes ply their (not) illicit avocation. Nothing could have been more feasible than to weed the infected from the healthy women in this great establishment. I called therefore with the late captain of this ship upon the Governor of Kanagawa, on the 8th of July, for the purpose of informing him that the Commander in Chief was desirous that preventive measures should be speedily adopted with the view to prevent the spreading of venereal diseases among the crews of Her Majesty's ships in the bay. The reply of the Japanese official was as frank as it was laconic: viz., that he could not see how it was possible to weed the infected women from the healthy in an establishment where all were equally tainted by the disease. Our visit, however, was followed by a remarkable incident. On the night following, nearly the whole of the buildings were burnt and reduced to ashes, but fortunately without any loss of life among the unfortunate women, who in a few days carried on their wretched trade as briskly as ever. Within eight-and-forty hours, in fact, the whole of the buildings (being constructed of wood) were rebuilt."

There were twenty-seven cases of syphilis and nine of gonorrhœa in the Severn, most of which were contracted at Bombay, where the ship's company had a large amount of leave, and the opportunities for debauchery in the native town are very great. They are said to have been of a mild character; but as each case of syphilis was on an average thirty days on the sick list, the loss of service caused by this disease was considerable.

Fifteen cases of syphilis and seventeen of gonorrhœa appear in the returns from the Leopard, all contracted in Japan. The surgeon states that syphilis gave a great deal of trouble, the most simple sore, although healing up rapidly, speedily being followed by secondary symptoms. "At first," he says, "I was given to understand that the after-consequences of this disease here were slight, but, from the experience I now have, I should say the very reverse was the case. I have therefore latterly, in every case of chancre, however mild in its form, slightly touched the gums with the bichloride of mercury in one-sixteenth of a grain doses three times a day, and kept up its influence for from ten days to a fortnight. This treatment seems to have been very successful, not only in my own practice, but also in that of others whom I have consulted on this subject. When the secondary scaly eruption shows itself, the bichloride of mercury with solution of arsenite of potass and tincture of colchicum has been found to be very efficacious." The treatment of each case of syphilis in this vessel averaged about six weeks.

In the Odin the few cases of venereal disease that were under treatment were contracted in the East Indian division of

of the station, while almost all the cases in the Barrosa, Encounter, and Pearl originated in Japan. A good many of the worst cases in the Scout were contracted at Whampoa, "a filthy place in every respect:" the surgeon says—

"Prostitutes swarm in the houses, and in the numerous boats on the river, and there is no attempt at supervision or regulation of any kind. At Hong Kong also several cases of syphilis and many of gonorrhœa came under treatment (only the worst cases of the latter disease were placed on the sick list). The sanitary regulations that were for some years enforced with good effect have lately been greatly neglected, and are now, I believe, scarcely attended to in any particular, and venereal diseases are rapidly increasing."

In the Argus there were forty-three cases of syphilis, and twenty-one of gonorrhœa. The surgeon* of this vessel states that the majority of the chancres were without induration, and after their surfaces were destroyed by strong nitric acid, they readily healed. He adds, that the absence of induration, however, did not afford any protection against secondary eruptions, many of the soft chancres having been followed by papular eruptions, which were treated with bichloride of mercury and iodide of potassium.

In the Hornet and Pantaloon, venereal diseases were chiefly contracted at Bombay; in the Centaur, Perseus, Rattler, and Sphinx, in China and Japan. The surgeon† of the Perseus says, that syphilis presented different phases in different localities at which the vessel was stationed: that at Hong Kong, the chancres were mostly of the true Hunterian type, with hardened bases, sluggish in their action, requiring different remedies frequently changed before they yielded, invariably followed by copper-coloured scaly eruption and rheumatic pains, and in one case only by bubo. At Yokohama, on the other hand, the primary sores on the first arrival of the vessel, were soft and very amenable to treatment, and were almost invariably followed by buboes, rheumatic pains, and a papular eruption. Latterly, however, from the great accession of foreigners of all nations, the gregarious manner in which the men cohabited, the loose habits of the people, and the cheap rate of prostitution, over which the authorities exercised little or no control, the venereal poison he thinks became more virulent and intractable, and the sores began to assume a sloughing form, requiring strong escharotics, frequently applied, to arrest their progress. The surgeon of the Cormorant,

* Surgeon T. B. Purchas.

† Surgeon J. S. Adams.

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morant, on board which vessel almost all the venereal disease was contracted at Yokohama, states that a most virulent form of syphilis prevails there; that the sores frequently assume a phagedenic or serpiginous character, losing all induration, but followed by secondary and tertiary manifestations of a serious kind, which, in many cases, weaken and shatter the constitution, and are almost invariably very tedious.

The majority of cases of venereal disease in the other vessels of the squadron were contracted in Japan.

Rheumatism.—The ratio of cases of this disease was 96·8 per 1,000 of mean force, which, although considerably in excess of that of the previous year, is precisely the average ratio of this station taken for a period of seven years. A large proportion of the cases appear to have had a syphilitic origin.

Ophthalmia.—This disease was epidemic in a considerable number of the vessels stationed in Japan. The Euryalus, Barrosa, Encounter, Pearl, Argus, Centaur, Perseus, Rattler, and Racehorse all suffered from it. Ophthalmia broke out in an epidemic form amongst the Japanese at Yokohama, in the month of September, and speedily extended to the crews of Her Majesty's ships in the bay. It was of the catarrhal variety, and, as a rule, very amenable to treatment. In the Encounter, in which there was the largest number of cases, it was first contracted by some of the men on leave, and quickly spread amongst the ship's company, one-third of whom were affected by it. In the Centaur, four of the cases assumed a distinctly purulent character, and one proved very intractable, resulting in ulceration and opacity of the cornea of the right eye, and effusion of lymph in the left pupil, so that vision was very much impaired. Some cases in the Argus also became purulent.

Wounds and Injuries.—Twelve men were killed in action at Kagosima, and one in an attack upon pirates; a man fell down a hatchway, and sustained a fatal fracture of the skull; three men were killed by falling from aloft; one man was killed by another man, who sustained very little injury, falling from aloft upon him. He was in a boat at the time, stooping, in the act of coiling up a rope, when the whole weight of the man alighted on his back, and forced his head with great violence against a ring-bolt, causing fatal fracture of the skull. An officer was fatally injured by being crushed by a boat, the fastenings of which were carried away in a gale of wind; and a man died of internal hæmorrhage, the result of injuries

injuries sustained by falling from the gangway of the ship across the gunwale of a boat lying alongside.

Ten men were drowned by falling overboard; two by falling out of native Chinese boats when drunk; two by being capsized in shore boats; and two by being swamped in boats. Seven deaths from drowning are returned in which the circumstances are not stated. One man was drowned while on leave from his ship; one man was found drowned, and a man was drowned by being washed overboard in heavy weather.

Two men committed suicide; one, while insane, by drowning himself, and the other by shooting himself through the heart.

Three deaths by violence occurred in the gun-boats, but no details are given in connection with them.

The total number of deaths on the station from all causes was 167, of which 116 were from disease, and 51 were violent deaths. The total death-rate was 31·8 per 1,000 of mean force, which is less than one-half the ratio of mortality of the preceding year.

Invalided.—Seven men were invalided for the sequelæ of fever; twenty-two for various diseases of the brain or nervous system, nine being epileptic, five paralytic, and eight insane; forty-four for diseases of the respiratory organs, thirty-nine of whom were labouring under consumption; twenty-six for functional and organic diseases of the heart and blood vessels; eighty-one for diseases of the alimentary canal, all of whom, with one exception, were suffering from dysentery or dysenteric diarrhœa; fourteen for inflammation of the liver; thirty-nine for diseases of the genito-urinary organs, twenty-nine of whom were afflicted with various forms of syphilitic disease; twenty-seven for rheumatism; one for gout; six for diseases of the bones and joints; three for affections of the special senses; twenty-five for diseases of the skin and cellular tissue; seven for dyspepsia and debility; ten for dropsy; seventeen for wounds and injuries; and fifteen for hernia; making altogether 336, or in the ratio of 64·1 per 1,000 of mean force, which is considerably in excess of the invaliding rate of the previous year.

TABLE, No. 1.

SHOWING the Number of CASES of all DISEASES and INJURIES, and the Number INVALIDED and DEAD, with the Ratio per 1,000 of Mean Force.

DISEASE OR INJURY.	Number of Cases.	Ratio per 1,000 of Mean Force.	Number Invalided.	Ratio per 1,000 of Mean Force.	Number Dead.	Ratio per 1,000 of Mean Force.
Continued and Remittent Fever	574	121·	1	·1	12	2·2
Intermittent Fever	441	93·	6	1·1	—	—
Small Pox	38	8·	-	-	10	1·9
Scarlatina	6	1·2	-	-	2	·3
Disease of the Brain	4	·8	-	-	6	1·1
Apoplexy	12	2·5	—	—	—	—
Epilepsy	21	4·4	9	1·7	—	—
Paralysis	6	1·2	5	·9	1	·1
Insanity	8	1·6	8	1·5	—	—
Delirium Tremens	13	2·7	—	—	—	—
Neuralgia	12	2·5	—	—	—	—
Inflammation of the Lungs and Pleura	107	22·5	3	·5	2	·3
Phthisis and Hæmoptysis	52	10·9	39	7·4	10	1·9
Influenza and Catarrh	746	157·3	—	—	—	—
Cynanche	118	24·8	-	-	1	·1
Asthma	6	1·2	2	·3	—	—
Functional and Organic Disease of the Heart	48	10·1	21	4·	—	—
Hæmorrhoids	25	5·2	—	—	—	—
Varix	11	2·3	3	·5	—	—
Aneurism	-	-	2	·3	—	—
Inflammation of the Stomach and Bowels	16	3·3	1	·1	5	·9
Dysentery	141	29·7	76	14·5	27	5·1
Diarrhœa	1,426	300·8	4	·7	6	1·1
Cholera	50	10·5	-	-	26	4·9
Constipation and Colic	159	33·5	—	—	—	—
Inflammation of the Liver	32	6·7	14	2·6	2	·3
Jaundice	13	2·7	—	—	—	—
Splenitis	1	·2	—	—	—	—

TABLE, No. 1.—Showing the Number of Cases of all Diseases, &c.—*continued.*

DISEASE OR INJURY.	Number of Cases.	Ratio per 1,000 of Mean Force.	Number Invalided.	Ratio per 1,000 of Mean Force.	Number Dead.	Ratio per 1,000 of Mean Force.
Inflammation of the Bladder and Kidneys	3	·6	3	·5	4	·7
Syphilis	627	132·2	29	5·5	—	—
Gonorrhœa	272	57·3	—	—	—	—
Orchitis	151	31·8	3	·5	—	—
Stricture	30	6·3	4	·7	1	·1
Incontinence of Urine	3	·6	—	—	—	—
Rheumatism	459	96·8	27	5·1	1	·1
Gout	4	·8	1	·1	—	—
Disease of the Bones and Joints	31	6·5	6	1·1	—	—
Ophthalmia	627	132·2	1	·1	—	—
Amaurosis and Cataract	13	2·7	2	·3	—	—
Otitis and Deafness	44	9·2	—	—	—	—
Erysipelas	6	1·2	—	—	—	—
Scrofula	3	·6	4	·7	—	—
Bubo (*Symp.*)	99	20·8	—	—	—	—
Phlegmon and Abscess	1,591	335·6	5	·9	—	—
Ulcer	521	109·9	16	3·	—	—
Psora	14	2·9	—	—	—	—
Eruptions, &c.	77	16·2	—	—	—	—
Dyspepsia and Debility	425	89·6	6	1·1	—	—
Scurvy	1	·2	—	—	—	—
Dropsy	14	2·9	2	·3	—	—
Worms	17	3·5	—	—	—	—
Purpura	1	·2	—	—	—	—
Headache, &c.	61	12·8	1	·1	—	—
Wounds and Injuries	1,442	304·2	17	3·2	20	3·8
Burns and Scalds	61	12·8	—	—	—	—
Hernia	20	4·2	15	2·8	—	—
Drowned	-	-	-	-	26	4·9
Asphyxia	1	·2	—	—	—	—
Colica Pictonum	2	·4	—	—	—	—
Suicide	-	-	-	-	2	·3
Not stated	-	-	-	-	3	·5
TOTAL	10,706	2258·6	336	64·	167	31·8

Note.—The Mean Force by which the Number of Cases is divided does not include the Force employed in Gunboats.

Table, No. 2.

Showing the Number of Days' Sickness from each Disease, and from Injuries, the Average Number of Men Sick Daily, with the Ratio per 1,000 of Mean Force.

DISEASE OR INJURY.	Number of Days' Sickness on Board.	Number of Days' Sickness in Hospital.	Total Number of Days' Sickness.	Average Number of Men Sick Daily.	Ratio per 1,000 of Mean Force.
Continued and Remittent Fever	4,862	745	5,607	15·3	2·9
Intermittent Fever	3,457	170	3,627	9·9	1·8
Small Pox	456	205	661	1·8	·3
Scarlatina	57	- -	57	·1	—
Disease of the Brain	31	26	57	·1	—
Apoplexy	106	6	112	·3	—
Epilepsy	349	128	477	1·3	·2
Paralysis	255	170	425	1·1	·2
Insanity	52	345	397	1·	·2
Delirium Tremens	121	89	210	·5	—
Neuralgia	187	- -	187	·5	—
Inflammation of the Lungs and Pleura	1,639	379	2,018	5·5	1·
Phthisis and Hæmoptysis	2,560	1,305	3,865	10·5	2·
Influenza and Catarrh	4,738	- -	4,738	12·9	2·4
Cynanche	1,006	25	1,031	2·8	·5
Asthma	162	- -	162	·4	—
Functional and Organic Disease of the Heart	967	320	1,287	3·5	·6
Hæmorrhoids	254	- -	254	·6	·1
Varix	394	235	629	1·7	·3
Inflammation of the Stomach and Bowels	171	273	444	1·2	·2
Dysentery	3,487	2,282	5,769	15·8	3·
Diarrhœa	10,099	1,266	11,365	31·1	5·9
Cholera	345	115	460	1·2	·2
Constipation and Colic	770	20	790	2·1	·4
Inflammation of the Liver	832	428	1,260	3·4	·6
Jaundice	152	167	319	·8	·1
Splenitis	64	- -	64	·1	—

TABLE, No. 2.—Showing the Number of Days' Sickness from each Disease, &c.—*cont*^{d}.

DISEASE OR INJURY.	Number of Days' Sickness on Board.	Number of Days' Sickness in Hospital.	Total Number of Days' Sickness.	Average Number of Men Sick Daily.	Ratio per 1,000 of Mean Force.
Inflammation of the Bladder and Kidneys	27	-	27	—	—
Syphilis	17,148	2,864	20,012	54·8	10·4
Gonorrhœa	4,869	153	5,022	13·7	2·6
Orchitis	2,480	472	2,952	8·	1·5
Stricture	707	751	1,458	3·9	·7
Incontinence of Urine, &c.	53	-	53	·1	—
Rheumatism	6,705	1,617	8,322	22·8	4·3
Gout	27	-	27	—	—
Disease of the Bones and Joints	736	482	1,218	3·3	·6
Ophthalmia	3,656	46	3,702	10·1	1·9
Amaurosis and Cataract	274	157	431	1·1	·2
Otitis and Deafness	254	169	423	1·1	·2
Erysipelas	80	-	80	·2	—
Scrofula	62	110	172	·4	—
Bubo (*Symp.*)	3,227	79	3,306	9·	1·7
Phlegmon and Abscess	14,085	510	14,595	39·9	7·6
Ulcer	10,659	1,415	12,074	33·8	6·4
Psora	158	-	158	·4	—
Eruptions, &c.	1,421	51	1,472	4·3	·8
Dyspepsia and Debility	3,571	1,157	4,728	12·9	2·4
Scurvy	23	-	23	—	—
Dropsy	470	89	559	1·5	·2
Worms	131	-	131	·3	—
Headache, &c.	409	40	449	1·2	·2
Purpura	6	-	6	—	—
Wounds and Injuries	18,096	1,052	19,148	52·4	10·
Burns and Scalds	870	14	884	2·4	·4
Hernia	215	373	588	1·6	·3
Colica Pictonum	80	-	80	·2	—
TOTAL	128,072	20,300	148,372	406·4	77·6

TABLE, No. 3. - - - - - - - -

SHOWING the Number INVALIDED from each Ship - - - - -

CAUSE of INVALIDING.	Algerine.	Argus.	Barrosa.	Centaur.	Coquette.	Cormorant.	Coromandel.	Encounter.	Euraylus.	Gun Boats.	Hornet.
Continued and Remittent Fever -	–	–	–	–	–	–	–	–	1	–	–
Intermittent Fever - - -	–	–	–	–	–	–	–	–	3	–	–
Insanity - - - - - -	–	1	1	–	–	1	–	–	–	2	–
Epilepsy - - - - -	1	–	–	–	–	–	–	1	1	1	–
Paralysis - - - - -	–	–	–	–	–	–	1	–	1	–	1
Inflammation of the Lungs -	–	–	–	–	–	–	–	–	–	–	–
Phthisis - - - - -	1	1	1	2	–	–	–	–	12	4	1
Asthma - - - - -	–	–	–	–	–	–	–	–	–	–	–
Disease of the Heart - -	–	1	3	–	–	–	–	–	4	5	–
Aneurism - - - - -	–	–	–	–	–	–	–	–	1	–	–
Varix - - - - -	–	–	–	–	–	–	–	–	1	–	–
Inflammation of the Bowels -	–	–	–	–	–	–	–	–	–	–	–
Dysentery - - - -	–	–	–	–	1	–	–	2	25	17	–
Diarrhœa - - - -	–	–	–	–	–	–	–	1	–	1	–
Inflammation of the Liver -	1	–	–	–	3	–	–	–	4	2	–
Inflammation of the Kidneys -	–	–	–	1	–	–	–	1	–	–	–
Syphilis - - - - -	1	–	2	–	–	–	1	3	5	5	–
Orchitis - - - - -	–	–	–	–	–	–	–	–	1	1	–
Stricture - - - - -	–	–	–	–	–	–	–	–	–	–	–
Ophthalmia - - - -	–	–	–	1	–	–	–	–	–	–	–
Nyctalopia - - - -	–	–	1	–	–	–	–	–	–	–	–
Rheumatism - - - -	1	–	–	1	–	1	–	–	–	3	–
Disease of the Bones and Joints -	–	–	–	1	–	–	–	–	2	1	–
Gout - - - - -	–	–	1	–	–	–	–	–	–	–	–
Scrofula - - - - -	–	–	–	–	–	–	–	–	1	1	–
Abscess - - - - -	–	–	–	–	–	–	–	*a* 2	–	–	–
Ulcer - - - - -	1	–	–	1	–	–	–	1	3	–	1
Dropsy - - - - -	–	–	–	–	–	–	–	–	–	–	–
Dyspepsia - - - -	–	–	1	–	–	1	–	1	–	–	–
Headache - - - - -	–	–	–	–	–	–	–	–	–	–	–
Wounds and Injuries - -	–	2	–	–	1	–	–	1	1	3	–
Hernia - - - - -	–	1	1	–	–	–	–	–	–	1	–
TOTAL - -	6	6	11	7	5	3	2	13	66	47	3

a Anthrax.

TABLE, No. 3.

employed on the CHINA Station.

Insolent.	Leopard.	Leven.	Manilla.	Odin.	Osprey.	Pantaloon.	Pearl.	Perseus.	Princess Charlotte.	Racehorse.	Rattler.	Ringdove.	Scout.	Severn.	Slaney.	Snake.	Sphinx.	Swallow.	Vulcan.	TOTAL.
–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	1
–	–	–	–	–	–	–	–	–	–	2	–	–	–	–	–	–	–	–	–	6
–	–	–	1	–	–	–	1	–	–	–	–	–	–	1	–	–	–	–	–	8
–	1	–	–	–	–	–	1	–	–	–	1	–	1	–	–	–	–	–	1	9
–	–	–	–	–	–	–	–	1	–	1	–	–	–	–	–	–	–	–	–	5
–	–	–	–	–	–	1	–	–	–	–	–	–	–	2	–	–	–	–	–	3
–	4	–	–	–	3	2	1	2	–	2	–	–	1	2	–	–	–	–	–	39
–	–	–	–	–	–	–	–	–	–	–	–	–	–	2	–	–	–	–	–	2
–	3	–	–	–	1	2	–	–	–	–	–	–	–	1	–	–	–	1	–	21
–	–	–	–	–	–	–	1	–	–	–	–	–	–	–	–	–	–	–	–	2
–	–	1	–	–	–	–	–	–	–	–	–	–	–	1	–	–	–	–	–	3
–	–	–	–	–	–	1	–	–	–	–	–	–	–	–	–	–	–	–	–	1
–	1	–	1	–	–	–	6	–	4	–	–	12	1	1	1	1	–	–	3	76
–	–	–	–	–	–	–	–	1	–	1	–	–	–	–	–	–	–	–	–	4
–	–	–	–	–	–	–	4	–	–	–	–	–	–	–	–	–	–	–	–	14
–	1	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	3
–	–	–	–	–	–	1	2	1	–	1	–	3	1	3	–	–	–	–	–	29
–	1	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	3
–	–	–	–	–	–	–	3	–	–	–	1	–	–	–	–	–	–	–	–	4
–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	1
–	–	1	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	2
1	3	–	–	–	1	2	2	–	1	2	–	1	1	5	–	–	–	1	1	27
–	–	–	–	–	–	–	–	b1	–	–	–	–	–	1	–	–	–	–	–	6
–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	1
–	–	–	–	–	–	–	–	–	–	1	–	1	–	–	–	–	–	–	–	4
–	–	–	–	–	–	–	1	1	–	–	1	–	–	–	–	–	–	–	–	5
–	2	–	–	–	–	–	–	1	–	–	1	–	1	2	–	–	1	–	–	16
–	–	–	–	–	–	–	1	–	–	–	–	–	–	1	–	–	–	–	–	2
–	–	–	–	–	–	–	1	–	–	–	–	–	1	1	–	–	–	–	–	6
–	1	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	1
–	1	–	–	1	–	–	4	1	–	–	–	–	–	1	–	–	–	–	1	17
–	1	1	–	1	1	1	–	–	–	2	2	–	–	2	–	–	–	–	1	15
1	19	3	2	2	6	10	28	9	5	12	6	17	7	26	1	1	1	2	7	336

b Spinal Disease.

TABLE, No. 4.

SHOWING the Number of DEATHS in each

CAUSE OF DEATH.	Algerine.	Argus.	Barrosa.	Beagle.	Centaur.	Coquette.	Cormorant.	Encounter.	Euryalus.	Gunboats.	Leopard.	Leven.	Manilla.
Continued and Remittent Fever	–	1	2	–	–	–	–	–	–	4	–	1	–
Scarlatina	–	–	–	–	–	–	–	–	–	1	–	–	–
Small-pox	–	–	–	2	2	2	–	–	1	–	–	–	–
Inflammation of the Brain	–	–	–	–	–	–	–	–	–	1	–	–	–
Tumor of the Brain	–	–	–	–	–	–	–	–	–	–	–	–	–
Paralysis	–	–	–	–	–	–	–	–	–	–	–	–	–
Inflammation of the Lungs	–	–	–	–	–	–	–	1	–	–	–	–	–
Phthisis	–	1	–	–	–	–	–	–	1	1	–	–	–
Cynanche	–	–	–	–	–	–	–	–	–	–	–	–	–
Inflammation of the Bowels	–	–	–	–	1	–	–	1	–	1	1	–	–
Diarrhœa	2	–	–	–	–	–	–	–	1	2	–	–	–
Dysentery	–	–	–	–	–	–	–	1	8	9	1	–	–
Cholera	–		–	–	2	–	1	–	1	5	6	–	–
Inflammation of the Liver	–	–	–	–	–	–	–	–	–	–	–	–	–
Inflammation of the Bladder and Kidneys	–	–	–	–	1	–	–	–	–	–	–	–	–
Diabetes	–	–	–	–	–	–	–	1	–	–	–	–	–
Stricture	–	–	–	–	–	–	–	–	–	–	–	–	–
Rheumatism	–	–	–	–	–	–	–	–	–	–	–	–	–
Wounds and Injuries	–	–	–	–	–	–	–	1	12	1	–	–	–
Drowned	–	–	2	–	–	–	2	2	1	2	3	–	2
Suicide	–	–	–	–	–	–	–	–	–	*a* 1	–	–	–
Not stated	–	–	–	–	–	–	–	–	–	3	–	–	–
TOTAL	2	2	4	2	6	2	3	7	25	31	11	1	2

a By Drowning.

TABLE, No. 4.

Ship employed on the CHINA STATION.

Odin.	Osprey.	Pantaloon.	Pearl.	Perseus.	Princess Charlotte.	Racehorse.	Rattler.	Renard.	Rifleman.	Ringdove.	Scout.	Severn.	Slaney.	Snake.	Sphinx.	Vulcan.	TOTAL.
–	–	–	–	1	1	–	–	–	–	–	–	–	1	–	–	–	11
–	–	–	–	–	–	–	1	–	–	–	–	–	–	–	–	–	2
–	–	–	3	–	–	–	–	–	–	–	–	1	–	–	–	–	9
–	–	–	–	–	–	–	–	–	1	–	–	2	–	–	–	–	4
–	–	1	–	–	–	–	–	–	–	–	1	–	–	–	–	–	2
–	–	–	–	–	–	1	–	–	–	–	–	–	–	–	–	–	1
–	–	–	–	1	–	–	–	–	–	–	–	–	–	–	–	–	2
1	–	–	–	–	–	1	1	–	–	–	2	1	–	–	–	1	10
–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	1	–	1
–	–	–	–	–	–	–	–	1	–	–	–	–	–	–	–	–	5
–	–	–	1	–	–	–	–	–	–	–	–	–	–	–	–	–	6
–	–	1	–	1	–	–	1	–	–	2	–	–	1	–	–	2	27
–	–	–	–	1	–	6	2	–	–	–	–	–	2	–	–	–	26
–	–	–	–	–	–	–	1	–	–	–	1	–	–	–	–	–	2
–	–	–	–	1	–	–	–	–	–	–	1	–	–	–	–	–	3
–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	1
–	–	–	–	–	–	–	–	–	–	–	1	–	–	–	–	–	1
–	–	–	–	–	–	–	–	–	–	–	1	–	–	–	–	–	1
–	1	1	1	1	–	–	–	–	–	1	–	–	–	1	–	–	20
1	1	1	–	1	–	–	1	–	1	–	4	2	–	–	–	–	26
–	–	–	–	–	–	–	–	–	–	–	*b* 1	–	–	–	–	–	2
–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	3
2	2	4	5	7	1	8	7	1	2	3	12	6	4	1	1	3	167

b Shot himself.

TABLE, No. 5.

SHOWING the Names of the SHIPS; the Average Complement and the Mean Force; Number of Men Daily

C. Commissioned. P. O. Paid off.

Rate.	NAME of SHIP.	Where Commissioned.	When Commissioned.	Number of Guns.	Tonnage.	Horse Power.
Fourth Rates	Euryalus	Portsmouth	24 Jan. 1862	35	2,371	S. 400
	Severn	Devonport	19 July 1862	35	2,767	S. 500
Fifth Rates	Leopard	Devonport	11 Oct. 1862	18	1,406	P. 560
	Odin P. O.	Portsmouth	24 Sept. 1859	16	1,310	P. 560
Sixth Rates	Barrosa	Sheerness	26 Sept. 1862	21	1,700	S. 400
	Encounter	Devonport	24 Sept. 1859	14	953	S. 360
	Pearl	Portsmouth	23 Aug. 1859	21	1,469	S. 400
	Scout	Sheerness	14 June 1859	21	1,462	S. 400
Sloops	Argus	Sheerness	9 Aug. 1862	6	981	P. 300
	Centaur	Devonport	23 Sept. 1859	6	1,270	P. 540
	Hornet	Portsmouth	12 July 1860	17	753	S. 100
	Pantaloon	Bombay	15 Jan. 1863	11	574	S. 150
	Perseus	Devonport	28 Sept. 1862	17	955	S. 200
	Rattler	Sheerness	5 July 1862	17	952	S. 200
	Sphinx P. O.	Portsmouth	21 Sept. 1859	6	1,061	P. 500
Gun Vessels	Algerine	Hong Kong	Jan. 1861	3	299	S. 80
	Coquette	Portsmouth	7 Apr. 1862	4	677	S. 200
	Cormorant	Sheerness	21 May 1862	4	695	S. 200
	Leven	Hong Kong	2 Dec. 1862	3	300	S. 80
	Osprey D. C.	Woolwich	3 Jan. 1863	4	682	S. 200
	Racehorse	Sheerness	19 May 1862	4	695	S. 200
	Renard P. O.	Sheerness	23 Sept. 1859	4	680	S. 200
	Ringdove	Portsmouth	28 Sept. 1859	4	674	S. 200
	Slaney	Hong Kong	23 Oct. 1861	3	301	S. 80
	Snake P. O.	Sheerness	21 Sept. 1859	4	450	S. 160
	Vigilant C.	Sheerness	13 Feb. 1863	4	680	S. 200
Steam Vessels	Coromandel			5	303	P. 150
	Manilla	Hong Kong	1 Jan. 1862	–	295	S. 70
Gun Boat	Insolent	Hong Kong	23 Oct. 1861	2	233	S. 60
Surveying Steam Vessels.	Rifleman	Woolwich	15 Nov. 1861	4	486	S. 100
	Swallow	Sheerness	21 Nov. 1861	5	486	S. 60
Troop Ship	Vulcan	Portsmouth	2 July 1859	6	1,764	S. 350
Hospital Ship	Acorn	Shanghai	27 Oct. 1861	–	485	–
Receiving Ship	Princess Charlotte	Portsmouth	25 Apr. 1857	12	2,443	–
Hulk	Sapphire			–	606	–

- - - - - - - TABLE, No. 5.

the Number of Cases; the Number of Days' Sickness on Board; and the Average Sick in each Ship.

C. S. Station changed.

Period.	Average Complement.	Mean Force of each Ship.	Number of Cases.	Number of Days' Sickness on Board.	Average Number of Men Daily Sick.	Ratio per 1,000 of Mean Force of each Ship.	Number discharged to Hospital.
Year - -	525	525	1,211	14,733	40·3	76·7	19
Year - -	495	495	764	10,043	27·5	55·5	10
Year - -	300	300	465	7,780	21·3	71·	3
1 Jan. to 25 Aug.	280	145	391	4,279	11·7	80·6	5
Year - -	270	270	708	5,809	15·9	58·8	14
Year - -	185	185	428	5,505	15·	80·	7
Year - -	250	250	857	12,710	34·8	139·	15
Year - -	240	240	290	3,545	9·6	40·	16
Year - -	175	175	454	5,191	14·2	81·1	9
Year - -	180	180	308	5,040	13·8	76·6	2
Year - -	160	160	225	2,587	7·	43·7	5
Year - -	125	125	262	3,401	9·3	74·4	8
Year - -	180	180	427	5,194	14·2	78·8	13
Year - -	170	170	455	3,505	9·5	55·8	9
1 Jan. to 30 June	115	50	136	1,837	5·	100·	6
Year - -	40	40	116	1,289	3·5	87·5	4
Year - -	90	90	332	3,105	8·4	93·3	15
Year - -	90	90	306	2,934	8·	88·8	12
Year - -	50	50	129	1,268	3·4	68·	3
1 July to 31 Dec.	80	40	112	1,075	2·9	72·5	1
Year - -	95	95	441	4,633	12·6	132·6	18
1 Jan. to 30 June	80	40	82	1,067	2·9	72·5	7
Year - -	90	90	352	4,518	12·3	136·6	18
Year - -	50	50	94	842	2·3	46·	5
1 Jan. to 3 June	60	30	64	473	1·2	40·	2
1 Oct. to 31 Dec.	90	20	84	680	1·8	90·	6
Year - -	35	35	78	914	2·5	71·4	8
Year - -	50	50	76	1,147	3·1	62·	—
Year - -	40	40	83	874	2·3	57·5	2
1 Nov. to 31 Dec.	80	15	22	166	·4	26·6	2
Year - -	90	90	137	1,856	5·	55·5	3
Year - -	165	165	529	8,114	22·2	134·5	2
Year - -	25	25	121	3,880	10·6	42·4	22
Year - -	220	220	132	2,003	5·4	24·5	14
Year - -	15	15	35	286	·7	46·6	—

TABLE, No. 6. - - - - - - - -

SHOWING the Number of CASES of all DISEASES and - - - - - -

DISEASE OR INJURY.	Acorn.	Algerine.	Argus.	Barrosa.	Centaur.	Coquette.	Cormorant.	Coromandel.	Encounter.	Euryalus.	Hornet.	Insolent.	Leopard.	Leven.	Manilla.	Odin.
Continued and Remittent Fever	8	4	1	16	3	71	4	–	24	61	21	7	22	13	–	29
Intermittent Fever - -	1	11	3	5	8	9	1	4	59	5	–	4	1	13	3	7
Small Pox - - - - -	–	–	–	–	5	–	–	–	–	1	–	–	4	–	–	–
Scarlatina - - - - -	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Inflammation of the Brain -	–	–	–	2	–	–	–	–	–	1	–	–	–	–	–	–
Apoplexy - - - - -	–	–	–	*a* 1	–	–	–	–	–	–	–	–	*b* 2	–	*a* 1	–
Epilepsy - - - - -	1	2	1	–	–	–	–	–	3	–	–	1	2	–	–	1
Insanity - - - - -	2	–	–	1	–	–	2	1	–	–	–	–	–	–	–	–
Delirium Tremens - - -	–	–	–	–	–	–	–	–	1	1	–	1	–	–	–	–
Paralysis - - - - -	–	–	–	–	–	1	–	3	–	–	–	–	1	–	–	–
Neuralgia - - - - -	–	–	2	2	1	–	–	–	–	–	–	–	–	–	–	–
Inflammation of the Lungs and Pleura - - - - -	3	1	2	5	1	5	–	–	7	24	19	6	1	–	1	5
Phthisis and Hæmoptysis -	–	3	3	–	3	–	–	–	–	14	1	–	2	–	–	2
Catarrh - - - - -	6	3	54	23	25	12	53	–	10	104	–	1	22	–	2	32
Cynanche - - - - -	–	–	2	2	–	3	5	–	1	30	10	–	10	–	–	5
Asthma - - - - -	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Functional and Organic Disease of the Heart - - - -	1	–	2	4	–	1	–	1	–	*c* 5	3	–	2	2	–	–
Varix - - - - -	2	–	–	–	–	–	–	–	–	3	–	–	–	2	–	–
Hæmorrhoids - - - -	–	–	–	2	–	1	1	–	–	1	1	–	–	–	–	2
Inflammation of the Stomach and Bowels - - - -	1	–	–	–	1	*d* 4	–	–	2	–	1	–	2	–	–	–
Dysentery - - - - -	8	–	–	–	–	2	2	–	1	18	–	1	1	–	1	7
Diarrhœa - - - - -	33	28	44	59	22	51	103	7	36	147	17	8	88	1	2	31
Cholera - - - - -	6	1	–	–	2	–	7	–	–	–	1	–	12	–	–	1
Constipation and Colic -	–	6	7	19	–	8	1	3	1	12	–	3	6	2	1	10
Inflammation of the Liver -	1	–	–	–	–	5	–	–	–	1	2	–	–	–	1	4
Jaundice - - - - -	–	–	–	–	–	–	–	2	–	2	1	–	–	–	1	–
Splenitis - - - - -	–	–	–	–	–	–	–	–	–	–	–	–	1	–	–	–
Inflammation of the Kidneys and Bladder - - -	–	–	–	–	–	–	–	–	–	*f* 1	–	–	1	–	–	1
Syphilis - - - - -	8	3	43	31	13	15	18	9	31	158	10	11	15	5	17	7
Gonorrhœa - - - -	1	3	21	30	9	2	3	–	1	54	5	4	17	5	7	3
Orchitis - - - - -	2	4	5	5	9	6	3	2	10	18	7	3	10	1	2	3
Stricture - - - - -	–	–	1	2	1	–	–	2	–	2	1	–	–	–	–	1
Incontinence of Urine, &c. -	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	1
Rheumatism - - - -	8	3	16	24	30	21	6	1	13	27	11	7	14	8	5	12
Gout - - - - -	–	–	–	3	–	–	–	–	1	–	–	–	–	–	–	–
Disease of the Bones and Joints	1	–	4	–	1	–	–	–	–	9	2	–	4	–	–	–
Inflammation of the Eyes -	1	–	60	68	71	1	1	*g* 1	*h* 112	55	2	–	5	1	–	6
Amaurosis and Cataract -	1	–	–	*i* 8	–	–	–	–	–	–	–	–	–	*i* 1	–	–
Otitis and Deafness - - -	–	–	1	19	–	–	1	–	–	*k* 10	–	–	2	–	–	–
Erysipelas - - - -	–	–	1	1	–	–	–	–	–	2	–	–	–	–	–	–
Scrofula - - - - -	–	–	–	–	–	1	–	–	–	1	–	–	–	–	–	–
Bubo (*Symp.*) - - - -	5	1	13	1	3	2	1	1	3	–	–	1	7	–	–	–
Phlegmon and Abscess - -	2	21	42	216	45	41	36	13	37	159	56	11	99	18	14	50
Purpura - - - - -	–	–	–	–	–	–	–	–	–	1	–	–	–	–	–	–
Ulcer - - - - -	4	1	8	33	16	9	4	5	18	38	15	2	15	27	5	49
Psora - - - - -	–	1	–	–	–	–	–	–	–	3	–	1	–	–	–	–
Eruptions, &c. - - -	1	–	8	2	1	2	1	2	2	8	2	–	5	–	–	8
Dyspepsia and Debility - -	4	5	12	44	8	19	39	3	4	13	12	2	6	6	3	5
Headache, &c. - - -	1	–	–	–	–	–	–	1	1	7	1	–	1	7	–	7
Dropsy - - - - -	–	–	–	1	1	–	–	–	–	*m* 4	1	–	–	1	–	–
Asphyxia - - - - -	–	–	–	–	–	–	–	–	–	1	–	–	–	–	–	–
Scurvy - - - - -	–	–	–	–	–	–	–	–	–	–	–	1	–	–	–	–
Worms - - - - -	–	–	–	–	–	2	–	–	–	6	1	–	–	2	–	1
Colica Pictonum - - -	–	–	–	–	–	–	–	–	–	–	–	–	1	–	–	–
Wounds and Injuries - -	8	11	94	74	26	37	13	17	49	198	22	7	78	15	9	94
Burns and Scalds - - -	–	4	3	4	3	1	1	–	1	6	–	1	4	–	1	5
Hernia - - - - -	1	–	1	1	–	–	–	–	–	–	–	–	2	1	–	2
TOTAL - - -	121	116	454	708	308	332	306	78	428	1,211	225	83	465	129	76	391

a 1 Coup de Soleil. *b* Coup de Soleil. *c* 1 Aneurism. *d* 1 Hæmatemesis. *e* Melæna. *f* Hæmaturia.

Table, No. 6.

Injuries in each Ship on the East India and China Station.

Osprey.	Pantaloon.	Pearl.	Perseus.	Princess Charlotte.	Racehorse.	Rattler.	Renard.	Rifleman.	Ringdove.	Sapphire.	Scout.	Severn.	Slaney.	Snake.	Sphinx.	Swallow.	Vigilant.	Vulcan.	Total.
7	24	41	7	5	77	11	6	1	48	–	4	18	20	3	3	–	4	11	574
4	–	16	7	8	3	5	11	–	74	17	14	2	29	13	8	4	1	91	441
–	1	25	–	–	–	–	–	–	–	–	–	1	–	–	1	–	–	–	38
–	–	–	–	–	–	6	–	–	–	–	–	–	–	–	–	–	–	–	6
–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
b 1	–	–	–	*a* 1	–	1	–	–	–	–	–	–	–	–	–	–	–	–	4
–	1	–	–	–	–	1	–	–	–	–	3	*a* 3	–	–	*b* 2	–	–	*b* 1	12
–	–	–	1	–	–	–	–	–	–	–	–	2	–	–	1	–	–	2	21
–	–	–	–	–	–	–	–	–	–	–	–	1	–	–	–	–	–	–	8
–	–	–	4	–	–	1	–	–	–	–	3	1	–	–	–	–	1	–	13
–	–	–	–	–	–	–	–	–	–	–	–	1	–	–	–	–	–	–	6
–	–	2	–	–	1	2	–	–	–	–	–	–	–	–	2	–	–	–	12
–	6	–	7	1	6	2	1	–	–	–	–	2	1	–	–	–	1	–	107
1	3	–	1	–	3	–	–	–	–	–	2	7	–	1	4	–	–	2	52
6	32	28	19	–	50	21	11	2	15	1	26	106	2	7	9	21	6	37	746
1	1	4	8	–	2	8	–	–	1	–	8	7	–	–	1	5	–	4	118
–	–	–	–	–	–	–	–	–	–	–	1	5	–	–	–	–	–	–	6
–	7	2	–	–	–	1	–	–	–	–	1	7	–	3	2	3	1	–	48
–	–	–	1	–	–	–	–	–	2	–	–	1	–	–	–	–	–	–	11
–	–	6	1	2	1	–	–	–	1	–	1	1	–	–	–	1	2	1	25
e 1	1	–	–	1	–	–	1	–	–	–	–	*d* 1	–	–	–	–	–	–	16
1	4	2	2	1	–	–	3	–	14	1	8	9	2	–	–	–	–	53	141
39	31	157	55	12	89	66	7	5	54	1	30	36	20	5	13	15	3	111	1,426
3	–	–	1	–	8	3	–	–	–	–	2	2	–	–	–	–	–	1	50
–	–	33	3	4	3	17	–	–	2	–	10	1	–	1	1	1	2	2	159
1	–	4	1	–	–	7	2	–	–	–	2	1	–	–	–	–	–	–	32
–	–	–	–	–	–	–	–	–	1	–	3	2	–	–	–	–	–	1	13
–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	1
–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	3
5	8	45	25	12	11	14	1	5	14	–	17	27	3	1	11	7	1	28	627
–	3	29	21	2	9	1	–	–	5	–	9	9	2	–	1	5	1	10	272
5	2	9	9	4	–	1	2	–	4	–	4	5	–	1	4	4	–	7	151
–	–	7	–	3	1	2	–	1	–	–	2	2	–	–	2	–	–	–	30
–	–	–	–	–	–	2	–	–	–	–	–	–	–	–	–	–	–	–	3
3	14	21	23	6	26	27	4	1	18	5	13	45	2	4	4	14	4	24	459
–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	4
1	–	1	–	1	1	1	–	–	–	–	–	2	–	–	–	–	–	3	31
1	1	99	32	3	27	41	1	–	12	1	–	14	–	–	1	2	–	8	627
–	–	–	–	1	1	–	–	–	–	–	–	–	–	–	–	1	–	–	13
–	2	1	2	–	–	5	–	–	–	–	–	–	–	–	1	–	–	–	44
–	–	–	–	–	–	–	–	–	–	–	–	1	–	–	–	–	1	–	6
–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	1	–	–	–	3
–	2	11	5	–	1	2	–	–	6	–	5	8	–	–	3	10	–	8	99
13	33	119	71	22	46	85	9	2	42	4	24	157	7	1	25	19	19	33	1,591
–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	1
4	17	14	25	12	6	19	3	–	19	–	19	93	–	3	5	–	15	18	521
–	1	3	–	–	–	–	–	–	–	4	–	1	–	–	–	–	–	–	14
1	1	5	1	2	–	6	–	–	2	–	6	7	–	*l* 2	–	–	–	2	77
5	8	60	11	5	24	27	1	–	3	–	7	30	1	7	3	8	12	28	425
–	4	1	8	–	–	4	2	1	–	–	7	2	–	–	–	–	4	2	61
1	2	–	–	–	–	1	–	–	–	–	–	*m* 1	–	–	1	–	–	–	14
–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	1
–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	1
–	–	2	–	–	1	1	–	–	–	–	–	–	–	–	–	–	1	–	17
–	–	–	–	–	–	1	–	–	–	–	–	–	–	–	–	–	–	–	2
7	51	107	78	20	44	56	16	3	19	1	57	133	4	12	24	17	5	36	1,442
1	1	3	2	–	–	4	1	1	–	–	2	4	1	–	3	–	–	4	61
–	1	–	–	–	–	3	–	–	1	–	–	6	–	–	–	–	–	1	20
112	262	857	427	132	411	455	82	22	352	35	290	764	94	64	136	137	84	529	10,766

g Gonorrhœal. *h* 1 Gonorrhœal Ophthalmia. *i* Nyctalopia. *k* 1 Polypus. *l* Varicella. *m* Hydrocele.

AUSTRALIAN STATION.

Australian Station.

The squadron on the Australian Station in 1863 consisted of six vessels, one of which was a frigate of the fifth rate; two were frigates of the sixth rate; one was a sloop; and there were two gun-vessels. The mean force corrected for time was 580. Three of the vessels were on the station during the whole year, two were each three months, and one was between eight and nine months. There were 715 cases of disease and injury under treatment, of which 17 were invalided and 16 died. The ratio of cases was 1232·7 per 1,000 of mean force; of invaliding 29·3, and of mortality 27·5, all of which, but especially the two latter, are largely in excess of the ratios of the preceding year.

The daily loss of service from febrile diseases was in the ratio of ·3 per 1,000; from diseases of the organs of respiration, 5·8; of the heart and blood vessels, ·3; of the alimentary canal, 2·5; of the liver, ·1; from syphilis, 1·7; from rheumatism, 3·2; diseases of the special senses, ·8; diseases of the skin and cellular tissue, 3·3; from dyspepsia, ·3; and from wounds and injuries of various kinds, 9·4. The total daily loss of service from all causes was equal to twenty-four men, which is in the ratio of 41·3 per 1,000 of mean force, a slight decrease as compared with the previous year.

Fevers.—There were twenty-two cases of primary fever and four of ague under treatment in the squadron throughout the year, and of these two of the former had a fatal termination. Two thirds of all the cases of primary fever were in the Eclipse, and one of them proved fatal. The average treatment of each of these cases occupied about thirteen days. Two of the cases were of the enteric type, and it was one of these which proved fatal. In this instance the subject of the attack, a petty officer, presented himself complaining of slight febrile symptoms, accompanied with much irritability of stomach, cough, and mucous expectoration. There was very speedily a great and unaccountable debility and prostration.

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tion. The bowels became affected, the cough shorter and more troublesome, and the expectoration viscid and rusty coloured. The diarrhœa now became a prominent symptom; he had sleepless nights; diaphoresis was sometimes profuse, and alternated with a dry hot skin; the tongue was dry, and the tip and edges coated with brown incrustations, Slight pain or tenderness over the abdomen was complained of, increasing towards the right iliac fossa; the abdomen was soft and flaccid. In this condition he was sent to the Military Hopital, where he died. The following is the report of his case furnished by the hospital authorities. When admitted he was suffering from all the symptoms of typhoid fever, with pneumonic complications; he had cough, rusty expectoration, and posteriorly the chest was dull on percussion, and respiration was barely audible. He was in a low state, but did not then complain of diarrhœa, or pain in the abdomen. On the following day all the symptoms had disappeared from his chest. During the night his bowels were four times moved, and he suffered from intense pain in the right iliac region; the skin was covered with clammy perspiration, pulse 120, and the abdomen was tympanitic. He continued much in this state until his death. His bowels were not moved for two days before his death. The post-mortem examination of his body took place seventeen hours after death. The body was not much emaciated; the heart and lungs were healthy; there was some hypostatic congestion of the latter. The stomach and small intestines were greatly inflated, and contained some fluid; the large intestine was empty. The great omentum was very much congested. The convolutions of the lower part of the ileum were matted together, and covered with yellow plastic lymph. The glands of this part of the intestine were ulcerated, and one of the ulcers had perforated its walls. The spleen was considerably enlarged and its substance very soft and pliable. The other organs were healthy.

There was a single case of primary fever in the Harrier. It occurred in New Zealand, and does not seem to have been of much importance. The man was discharged to the Military Hospital, where he remained thirteen days. There were four cases of primary fever in the Miranda in New Zealand, and three in the Pioneer in Australia. One of the latter proved fatal. Almost all the cases in both of these vessels assumed an adynamic form. The fatal case in the Pioneer appears to have been the result of insolation, in a man much reduced by long-continued debauchery. He was subject to epileptic

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seizures after a debauch, and while serving in China had suffered much from fever. The fatal attack occurred on the homeward passage of the ship; the man had been much exposed to the sun, and immediately afterwards complained of general pyrexial symptoms, accompanied with severe pains in the head, back, and limbs. There was great irritability of the stomach, restless wandering delirium, the face was flushed, and the eyes injected. The pain in the thighs and limbs was so intense that he was unable to stand erect. In forty-eight hours there was complete prostration of the nervous system, and he died on the sixth day after being placed on the sick list.

Diseases of the Brain and Nervous System.—There were two cases of epilepsy, one of paralysis, and two of delirium tremens in the squadron. Of the latter disease one occurred in the person of a warrant officer, the other in a petty officer. The case of paralysis occurred in the person of the shipwright of the Esk, who appears to have been admitted into the service in that condition. The injury which originally caused the disease was, by his own statement, sustained on board a merchant ship, in which he fell from the foretop and sustained very severe injuries, by which he was for a long time rendered insensible, and afterwards proved to be paralyzed. He gradually recovered from the paralysis to a very great extent, and was ultimately employed in the service on harbour duty, and at a last drafted into the Esk, where his case came under notice in consequence of a fall he sustained into the stokehold. He attributed his fall to his want of control over his limbs. He was found to be quite unfit for the service, and was forthwith invalided.

Diseases of the Organs of Respiration.—There is a considerable increase in the ratio of cases coming under this head, and also in the rate of invaliding, as compared with the previous year, but they occasioned no loss to the service by death. Among the cases of inflammatory disease there were three of bronchitis, each of which was, on an average, about eight days under treatment; four of pneumonia, giving an average of forty-eight days on the sick list to each case. This large amount of loss of service, however, was attributable to one of the cases alone, in which the patient, who had suffered great exposure on the occasion of the wreck of the Orpheus, and was for several hours in the water, was 119 days on the sick list. In this instance there were marked signs of incipient phthisis.

phthisis. There were also two cases of pleuritis, one being twenty-three, and the other thirty-nine days under treatment. In the latter case the affection was complicated with disease of the heart.

Diseases of the Alimentary Canal.—There was an increase in the ratio of cases of disease coming under this head, as compared with the preceding year, but the mortality occasioned by them was less. There was only one fatal case, in fact, and that occurred in the person of a seaman of the Miranda, who had been a hard drinker, and had suffered for some time from diarrhœa before he presented himself for treatment. His symptoms rapidly became dysenteric, and his system was unable to cope with the disease: on post-mortem examination of the body, the liver was found to be slightly enlarged and indurated. The spleen was also enlarged, very much congested, and so soft that it readily broke down under the fingers. The small intestines were greatly congested, with patches of blood scattered throughout. The colon and cæcum were healthy, but the rectum was congested, thickened, and at its upper part ulcerated through at one point.

In the Michaelmas quarter a naval brigade consisting of about 400 officers and men was landed, to co-operate with the troops in putting down the native rebellion. Part of this force was employed in boat service on the Waikato River, while the remainder was formed into a camp on the Maungatawhiri Creek. This Creek passes through and drains an immense flax swamp, the edges of which are here and there overhung by clumps of dense bush. The camp was pitched on a narrow neck of land running nearly across the swamp; the ground on which the tents were placed was dry and sandy, although they were not more than a few feet distant from the edge of the swamp. There, during a two months' residence of a portion of the force, most unexceptionable health was enjoyed, and it was reported by missionaries of long experience in the country, that ague and dysentery in New Zealand were absolutely unknown as arising from a residence in these swampy localities.

Very little information has been furnished with regard to the medical history of the naval brigade, but upon the whole the force appears to have enjoyed very good health. Catarrhs were not uncommon during the wet season, but they rarely were so severe as to require that those suffering from them should be placed on the sick list. As the hot weather set in

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a few cases of diarrhœa and dysentery were met with, and, in the height of the summer and autumn heats, there was some fever of a low type. This form of fever rarely visited the camps, until they had been formed for several weeks, and they were most severe in the old stations, especially in the vicinity of marshes. In one or two instances this fever appears to have been of the enteric type; diarrhœa of a characteristic nature, with tenderness over the right iliac region, being prominent symptoms.

Diseases of the Genito-Urinary Organs.—There was a considerable decrease in the ratio of these diseases as compared with the preceding year. In the whole squadron only thirteen cases of syphilis were under treatment, and with the exception of two cases in the Harrier, which appear to have had their origin in New Zealand, all the disease was contracted in Sydney. The total days' sickness from all the cases, gave an average of about one month on the sick list to each.

A seaman of the Curaçoa was invalided for syphilitic disease. It presented itself in the form of a sore, which took on an unhealthy action and ultimately opened into the urethra. Various measures, with the view to close the opening, were unsuccessfully had recourse to, and the man's system being much undermined, it was thought advisable to send him home.

Rheumatism.—Although there was a considerable increase in the ratio of cases of rheumatism as compared with the preceding year, it was still below the mean ratio of the station, which, taken for a period of seven years, was 94·3 per 1,000 of mean force. During the present year the ratio was 89·6. More than one-half of all the cases placed on the sick list appears in the returns from the Harrier, and are attributed by the surgeon of the ship to atmospheric vicissitudes. The treatment of each case on board ship occupied on an average about a fortnight. Some of the cases, however, were very tedious, and one was ultimately invalided, the heart having become implicated.

Wounds and Injuries.—A man sustained a fatal fracture of the skull by falling into the dry dock at Sydney, while drunk. Six men were killed in action against rebel Maories at Rangariri in New Zealand. In all these cases death resulted from gunshot wounds; in three the wound being in the

the head, in one in the neck, one in the chest, and one in the abdomen. In this action forty men were killed and eighty-eight wounded out of a force of 1,500 men. The assistant surgeon* of the Curaçoa, who was doing duty in the field with the naval brigade, says, with reference to these casualties, "Of twenty cases of death on the field, in which I had an opportunity of ascertaining the seat of the wound, I found that thirteen had been shot in the head, five in the chest, one in the neck, and one in the abdomen. Amongst the eighty-eight men wounded at Rangariri, I counted ninety-eight distinct wounds of entrance, situated as follows: In the head, four; face, five; neck, three; chest, nine; abdomen, four; pelvis, one; back, six; nates, three; shoulders, seventeen; arms, twelve; fore-arms, two; hands, four; thighs, twelve; knees, six; legs, nine; feet, one."

Two men were drowned by falling overboard; one was drowned while on boat service, and intoxicated; and of another who was drowned no particulars are given. The total number of deaths was sixteen, which is in the ratio of 27·5 per 1,000 of mean force, which is nearly three times the mortality of the previous year. The ratio of mortality from disease alone, however, is only 6·7 per 1,000.

Invalided.—One man was invalided for paralysis; six for diseases of the organs of respiration, of whom five were consumptive; one for disease of the heart; one for dysentery; one for inflammation of the liver; one for syphilis; one for rheumatism; one for diseases of the bones and joints; one for skin disease; two for wounds and injuries of various kinds; and one for hernia; making altogether seventeen, or in the ratio of 29·3 per 1,000 of mean force, which is more than double the invaliding rate of the previous year.

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* Dr. A. B. Messer.

TABLE, No. 1.

SHOWING the Number of CASES of all DISEASES and INJURIES, and the Number INVALIDED and DEAD, with the Ratio per 1,000 of Mean Force.

DISEASE OR INJURY.	Number of Cases.	Ratio per 1,000 of Mean Force.	Number Invalided.	Ratio per 1,000 of Mean Force.	Number Dead.	Ratio per 1,000 of Mean Force.
Continued and Remittent Fever	22	37·9	-	-	2	3·4
Intermittent Fever	4	6·8	—	—	—	—
Epilepsy	2	3·4	-	-	1	1·7
Paralysis	1	1·7	1	1·7	—	—
Delirium Tremens	2	3·4	—	—	—	—
Inflammation of the Lungs and Pleura	9	15·5	1	1·7	—	—
Phthisis and Hæmoptysis	5	8·6	5	8·6	—	—
Influenza and Catarrh	118	203·4	—	—	—	—
Cynanche	11	18·9	—	—	—	—
Functional and Organic Disease of the Heart	2	3·4	1	1·7	1	1·7
Inflammation of the Stomach and Bowels	1	1·7	—	—	—	—
Dysentery	5	8·6	1	1·7	1	1·7
Diarrhœa	62	106·9	—	—	—	—
Constipation and Colic	6	10·3	—	—	—	—
Inflammation of the Liver	1	1·7	1	1·7	—	—
Jaundice	3	5·1	—	—	—	—

TABLE, No. 1.—Showing the Number of Cases of all Diseases, &c.—*continued.*

DISEASE OR INJURY.	Number of Cases.	Ratio per 1,000 of Mean Force.	Number Invalided.	Ratio per 1,000 of Mean Force.	Number Dead.	Ratio per 1,000 of Mean Force.
Inflammation of the Bladder and Kidneys	1	1·7	—	—	—	—
Syphilis	13	22·4	1	1·7	—	—
Gonorrhœa	5	8·6	—	—	—	—
Orchitis	6	10·3	—	—	—	—
Stricture	4	6·8	—	—	—	—
Incontinence of Urine, &c.	1	1·7	—	—	—	—
Rheumatism	52	89·6	1	1·7	—	—
Disease of the Bones and Joints	6	10·3	1	1·7	—	—
Ophthalmia	9	15·5	—	—	—	—
Erysipelas	1	1·7	—	—	—	—
Scrofula	1	1·7	—	—	—	—
Bubo (*Symp.*)	3	5·1	—	—	—	—
Phlegmon and Abscess	142	244·8	—	—	—	—
Ulcer	32	55·1	—	—	—	—
Psora	5	8·6	—	—	—	—
Eruptions, &c.	32	55·1	1	1·7	—	—
Dyspepsia and Debility	21	36·2	—	—	—	—
Wounds and Injuries	120	206·8	2	3·4	7	12·
Burns and Scalds	6	10·3	—	—	—	—
Hernia	1	1·7	1	1·7	—	—
Drowned	-	-	-	-	4	6·8
TOTAL	715	1232·7	17	29·3	16	27·5

Table, No. 2.

Showing the Number of Days' Sickness from each Disease, and from Injuries, the Average Number of Men Sick Daily, with the Ratio per 1,000 of Mean Force.

DISEASE OR INJURY.	Number of Days' Sickness on Board.	Number of Days' Sickness in Hospital.	Total Number of Days' Sickness.	Average Number of Men Sick Daily.	Ratio per 1,000 of Mean Force.
Continued and Remittent Fever	391	50	441	1·2	2·
Intermittent Fever	44	-	44	·1	·1
Epilepsy	24	-	24	—	—
Paralysis	32	-	32	—	—
Delirium Tremens	2	20	22	—	—
Neuralgia	-	6	6	—	—
Inflammation of the Lungs and Pleura	185	-	185	·5	·8
Phthisis and Hæmoptysis	125	56	181	·4	·6
Influenza and Catarrh	921	-	921	2·5	4·3
Cynanche	62	-	62	·1	·1
Functional and Organic Disease of the Heart	101	-	101	·2	·3
Inflammation of the Stomach and Bowels	2	19	21	—	—
Dysentery	136	-	136	·3	·5
Diarrhœa	376	-	376	1·	1·7
Constipation and Colic	86	-	86	·2	·3
Inflammation of the Liver	7	-	7	—	—
Jaundice	42	-	42	·1	·1

TABLE, No. 2.—Showing the Number of Days' Sickness from each Disease, &c.—*cont^d.*

DISEASE OR INJURY.	Number of Days' Sickness on Board.	Number of Days' Sickness in Hospital.	Total Number of Days' Sickness.	Average Number of Men Sick Daily.	Ratio per 1,000 of Mean Force.
Inflammation of the Bladder and Kidneys	8	-	8	—	—
Syphilis	400	-	400	1·	1·7
Gonorrhœa	64	16	80	·2	·3
Orchitis	49	5	54	·1	·1
Stricture	14	66	80	·2	·3
Incontinence of Urine, &c.	9	-	9	—	—
Rheumatism	664	40	704	1·9	3·2
Disease of the Bones and Joints	122	32	154	·4	·6
Ophthalmia	144	50	194	·5	·8
Erysipelas	12	-	12	—	—
Scrofula	21	-	21	—	—
Bubo (*Symp.*)	43	-	43	·1	·1
Phlegmon and Abscess	1,286	-	1,286	3·5	·6
Ulcer	581	-	581	1·5	2·5
Psora	25	-	25	—	—
Eruptions, &c.	237	-	237	·6	·1
Dyspepsia and Debility	87	-	87	·2	·3
Wounds and Injuries	1,457	544	2,031	5·4	9·3
Burns and Scalds	69	-	69	·1	·1
Hernia	31	-	31	—	—
TOTAL	7,859	904	8,763	24·	41·3

TABLE, No. 3.

SHOWING the Number INVALIDED from each Ship employed on the AUSTRALIAN Station.

CAUSE OF INVALIDING.	Curaçoa.	Eclipse.	Esk.	Harrier.	Miranda.	TOTAL.
Paralysis	–	–	1	–	–	1
Inflammation of the Lungs	1	–	–	–	–	1
Phthisis	2	1	2	–	–	5
Disease of the Heart	–	–	–	1	–	1
Dysentery	–	–	1	–	–	1
Disease of the Liver	–	–	–	–	1	1
Syphilis	1	–	–	–	–	1
Rheumatism	–	–	–	1	–	1
Disease of the Bones	1	–	–	–	–	1
Eruptions	1	–	–	–	–	1
Wounds and Injuries	1	–	–	–	1	2
Hernia	–	1	–	–	–	1
TOTAL	7	2	4	2	2	17

TABLE, No. 4.

SHOWING the Number of DEATHS in each Ship employed on the AUSTRALIAN Station.

CAUSE OF DEATH.	Curaçoa.	Eclipse.	Esk.	Harriet.	Miranda.	Pioneer.	TOTAL.
Continued and Remittent Fever	–	1	–	–	–	1	2
Epilepsy	–	–	–	–	–	1	1
Disease of the Heart	–	–	–	–	1	–	1
Dysentery	–	–	–	–	1	–	1
Wounds and Injuries	–	–	–	1	–	–	1
Killed in Action	4	–	–	2	–	–	6
Drowned	1	–	1	1	1	–	4
TOTAL	5	1	1	4	3	2	16

Table, No. 5.

Showing the Names of the Ships; the Average Complements and the Mean Force; the Number of Cases; the Number of Days' Sickness on Board; and the Average Number of Men Daily Sick in each Ship.

C. Commissioned. P. O. Paid off.

Rate.	NAME of SHIP.	Where Commissioned.	When Commissioned.	Number of Guns.	Tonnage.	Horse Power.	Period.	Average Complement.	Average Complement Corrected for Time.	Number of Cases.	Number of Days' Sickness on Board.	Average Number of Men Daily Sick.	Ratio per 1,000 of Mean Force of each Ship.	Number discharged to Hospital.
Fifth Rate -	Curaçoa - C.	Portsmouth	22 Apr. 1863	31	1,571	S. 350	1 Oct. to 31 Dec.	200	50	33	854	2·3	46·	-
Sixth Rates -	Esk - - C.	Portsmouth	20 May 1863	21	1,169	S. 250	1 Oct. to 31 Dec.	240	60	75	793	2·1	35·	-
	Miranda - -	Sheerness -	6 Oct. 1860	15	1,039	S. 250	Year - -	195	195	128	1,682	4·6	23·5	1
Sloop - -	Harrier - - -	Portsmouth	30 Oct. 1860	17	748	S. 100	Year - -	125	125	271	2,176	5·9	47·2	8
Gun Vessels -	Eclipse - -	Sheerness -	26 Sept. 1862	4	700	S. 200	Year - -	85	85	147	1,536	4·2	49·4	11
	Pioneer - P. O.	Portsmouth	7 May 1859	6	868	S. 350	1 Jan. to 10 Sept.	95	65	61	931	2·5	38·4	1

TABLE, No. 6.

SHOWING the Number of CASES of all DISEASES and INJURIES in each Ship on the AUSTRALIAN Station.

DISEASE OR INJURY.	Curaçoa.	Eclipse.	Esk.	Harrier.	Miranda.	Pioneer.	TOTAL.
Continued and Remittent Fever	–	14	–	1	4	3	22
Intermittent Fever	–	2	1	–	–	1	4
Epilepsy	–	–	–	1	1	–	2
Delirium Tremens	–	1	–	–	1	–	2
Paralysis	–	–	1	–	–	–	1
Inflammation of the Lungs and Pleura	2	2	–	3	2	–	9
Phthisis and Hæmoptysis	1	2	1	1	–	–	5
Catarrh	5	15	2	37	42	17	118
Cynanche	–	–	4	7	–	–	11
Functional and Organic Disease of the Heart	1	–	–	1	–	–	2
Inflammation of the Stomach and Bowels	–	–	–	–	1	–	1
Dysentery	1	–	1	–	1	2	5
Diarrhœa	1	5	9	26	13	8	62
Constipation and Colic	–	–	2	4	–	–	6
Inflammation of the Liver	–	–	–	–	1	–	1
Jaundice	–	–	1	2	–	–	3
Inflammation of the Kidneys and Bladder	–	–	–	1	–	–	1
Syphilis	3	2	2	2	3	1	13
Gonorrhœa	–	1	–	2	1	1	5
Orchitis	2	2	–	2	–	–	6
Stricture	–	1	–	3	–	–	4
Incontinence of Urine, &c.	–	–	1	–	–	–	1
Rheumatism	2	11	1	34	4	–	52
Disease of the Bones and Joints	–	5	–	1	–	–	6
Inflammation of the Eyes	–	2	1	5	1	–	9
Erysipelas	–	–	–	–	1	–	1
Scrofula	–	–	–	1	–	–	1
Bubo (*Symp.*)	1	–	–	1	1	–	3
Phlegmon and Abscess	7	35	26	31	23	20	142
Ulcer	–	10	4	12	4	2	32
Psora	–	1	–	4	–	–	5
Eruptions, &c.	1	1	–	29	1	–	32
Dyspepsia and Debility	–	1	4	15	–	1	21
Wounds and Injuries	5	29	14	44	23	5	120
Burns and Scalds	1	4	–	1	–	–	6
Hernia	–	1	–	–	–	–	1
TOTAL	33	147	75	271	128	61	715

IRREGULAR FORCE.

Irregular Force.

THE Irregular Force in 1863 comprised fifty-one vessels of various classes, and two detachments of marines, of which one was stationed in the Falkland Islands, and the other was proceeding to Japan. Of the vessels three were of the second rate; two of the third; five of the fourth; two of the fifth; and nine of the sixth; there were seven sloops; eight gun-vessels; four denominated steam vessels; five troop ships; four store ships; one receiving ship; and one ironclad. The returns from three of the troop ships, and from all the store ships are for twelve months, but from the other vessels they vary from periods of a few weeks to seven months. With the exception of the troop ships and store ships, which have special duties, the other vessels comprehended in this force were either employed in fitting out and proceeding on their voyage to foreign stations, or were returning from foreign service, and paying off. The mean force corrected for time was 3,810; the total number of cases of all kinds under treatment was 6,925, or in the ratio of 1817·5 per 1,000 of mean force; of these 104 were invalided, and thirty died, the former being in the ratio of 2·72, and the latter of 6·8 per 1,000. The ratio of cases is somewhat higher than that of the preceding year, but there is a decrease both in the ratio of invaliding and of mortality.

About twelve men were daily under treatment for febrile diseases of various kinds; between two and three for diseases of the brain and nervous system; thirty-five for diseases of the respiratory organs; two for affections of the heart and blood-vessels; about eleven for diseases of the alimentary canal; one or two for diseases of the liver or spleen; sixty-nine for diseases of the genito-urinary organs, almost all being of venereal origin; nineteen for rheumatism; one or two for diseases of the bones and joints; between three and four for diseases of the special senses; seventy-one for diseases of the skin and cellular tissue, fifty-one of these being for boils and abscesses, or ulcers; seven for dyspepsia; and thirty-seven for wounds and injuries of various kinds; the total number daily sick being 278·5, or in the ratio of 73·1

73·1 per 1,000 of mean force, which exceeds that of the preceding year by 3· per 1,000.

Fevers.—One hundred and sixty-nine cases of primary fever were under treatment, of which two were invalided, and three terminated fatally. The total days' sickness on board ship and in hospital from these cases give an average of over sixteen days' treatment to each. The vessels in which the largest number of cases occurred were the Adventure, the Archer, and the Curaçoa.

In the Adventure, a troop ship, there were forty-two cases of primary fever, almost altogether of an ephemeral nature. They occurred chiefly in the Lady and Midsummer quarter of the year, when the vessel was employed in the West Indies, and on the Coast of Africa.

There were twenty cases of primary fever in the Archer. They all occurred during the Midsummer quarter, when the vessel was on her passage to, or had just arrived on, the West Coast of Africa. One of these was a well marked case of enteric fever, the rose-coloured eruption being fully developed, and the affection of the caput cæcum coli particularly well marked. The fatal case occurred off Sierra Leone, and was of the remittent type.

In the Curaçoa there were twenty-two cases of primary fever. They occurred during the passage of the vessel to the Australian station, and were for the most part of a trifling character, short in duration, and showing no tendency to relapse. The average duration of each case on the sick list was six days.

There was a fatal case of fever in the Leander on her passage to the Pacific, and one in the Orontes at Portsmouth. In the latter instance the patient died in Haslar Hospital. In both cases there were severe pneumonia symptoms.

Eruptive Fevers.—A fatal case, returned as scarlatina, occurred in the person of a steward of the Dromedary. The vessel was on the West Coast of Africa at the time, employed in the Bights, when the man presented himself complaining of pain in the back and limbs, and of a general feeling of debility. Three days afterwards it was for the first time observed that the skin, excepting on the face and neck, was of a uniform scarlet colour. On the following day there was slight desquamation of the cuticle of the arm and legs. Six days from the first appearance of the eruption it suddenly disappeared. This was followed by a marked aggravation of all the febrile symptoms, delirium set in, and he speedily sank into

Irregular Force.

into a state of insensibility and died. There appear to have been no throat symptoms, and nothing is said as to the secretion from the kidneys; with the exception of the eruption, in fact, the case presented none of the ordinary features of scarlatina. It did not extend to any other person in the ship, nor could any clue be obtained as to how the man contracted the disease.

Two cases of scarlatina occurred in the Gibraltar, one of which proved fatal. The first case made its appearance shortly after the vessel left Malta, where the man had been on shore on leave. He was placed on the sick list on the 21st of November, five days after having been on shore; the disease became fully developed on the 23rd, and terminated fatally on the 28th:—

"On the day of his death," the surgeon* of the ship states, "two men were brought to the sick bay with alarming symptoms, and during the ensuing week about twenty cases of cynanche tonsillaris were added to the list. In nearly all, the symptoms at first were the same, viz, general disturbance, redness of fauces, and enlarged tonsils; in some great depression also existed; some recovered rapidly; in others suppuration of one or both tonsils occurred, always attended by remarkable prostration. Most of the patients presented signs of former disease of the tonsils. Two men were attacked who had nursed the man who died. One, although the symptoms at first were severe, rapidly got well, but the other suffered much from suppuration of both tonsils. After the 5th of December the epidemic seemed to be on the wane, although cases occurred occasionally, but on the 20th of December a man was put on the sick list with the same train of symptoms that were present in most of the cynanche cases. On the 21st the state of his tongue indicated scarlatina; on the 22nd a faint rash appeared on the arms which became a little more distinct on the 23rd, then gradually faded, and on the 31st there was distinct desquamation. This is the only case in which any of the sequelæ of scarlatina have occurred; it was undoubtedly a genuine case of scarlatina, ushered in with exactly the same train of symptoms which attended the cases of cynanche treated between the 28th of November and the 20th of December. Desquamation was carefully looked for in those cases, but in vain."

There were thirteen cases of measles in the Leander, and three in the Aurora. In the former vessel the disease was contracted at Chatham, and in the latter in Portsmouth. In neither were the cases of much severity.

A case of small-pox occurred in the Leander while fitting out at Sheerness, and one in the Supply while at Deptford. In the latter instance the disease appears to have been contracted

* Surgeon M'Shane.

tracted in London, where the man had been on leave, and residing in a locality where it was very prevalent. In neither case is there any mention made as to whether the men had been previously vaccinated or not.

Diseases of the Brain and Nervous System.—There is a considerable increase in the ratio of cases coming under this head, as compared with the preceding year. Twenty cases of epilepsy were under treatment, of which six were invalided, and one had a fatal termination. The fatal case occurred in the person of a petty officer of the Termagant, and was probably dependent upon a syphilitic taint, as he appears to have suffered from disease of the bones of the leg.

Of sixteen cases of delirium tremens, three occurred in the persons of quarter-deck officers; one in a warrant officer; one in a petty officer; one in a non-commissioned officer of marines; two in stewards; seven in seamen; and one in a stoker. One of the quarter-deck officers, while labouring under this disease, jumped overboard and was drowned.

Diesases of the Organs of Respiration.—The ratio of cases of all diseases coming under this head is very nearly the same as in the preceding year; but there is a slight decrease in the ratios both of invaliding and of deaths. Three men were invalided, and six died from the effects of inflammatory disease of the lungs and pleura, and phthisis occasioned a loss to the service of twenty-four men invalided and five dead.

Diseases of the Heart and Blood-vessels.—There is a decrease in the ratio of cases of invaliding and of deaths under this head. Of 20 cases of functional or organic disease of the heart, six were invalided and one died. The fatal case occurred in a petty officer of the London, and the immediate cause of death appears to have been great effusion into the pericardium, the result of inflammation of that sac.

Diseases of the Alimentary Canal.—Ten cases of dysentery, of which one proved fatal, occurred in the Imperieuse, on her passage home from China.

A fatal case of perforation of the bowel occurred on board the Queen in the person of a seaman of the Gibraltar, who had been invalided for climatic cachexia. He had, for a long time suffered in his own ship from cough, general pseudo-rheumatic pains, and progressive debility. Dyspnœa was a constant and rather urgent symptom. Repeated careful examination failed to detect any signs of pulmonary disease, or anything that could account for the dyspnœa. The only sign of disease indeed that he presented was a chain of enlarged

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glands running along Poupart's ligament, of a very peculiar character. His symptoms do not appear to have altered much on board the Queen until the day of his death, when he complained of diarrhœa. At eight in the evening he complained of severe pain in the hypogastrium, with faintness and nausea; and the abdomen was found to be quite tympanitic. Some applications were being employed for his relief, and a warm bath was ordered for him; but before it could be got ready he was dead. The post-mortem examination of the body unfortunately does not appear to have been conducted with any degree of care. On opening the cavity of the abdomen it is stated that the smell of fæces was very offensive, and the mesentery was found to be much diseased. The staff-surgeon states that although the actual existence of perforation of the bowel was not verified by the examination, he had no doubt that death was owing to that cause. What the nature of the disease of the mesentery was, is not stated, nor do any of the organs in the chest or abdomen appear to have been examined.

Diseases of the Genito-Urinary Organs.—The ratio of cases of syphilis placed on the sick list during the year was 143·2 per 1,000 of mean force, which is an increase of about 22 per 1,000, as compared with the preceding year. There is a reduction, however, equal to 13·2 per 1,000 in the ratio of cases of gonorrhœa. The vessels that suffered most were the Gibraltar, the Scylla, the Leander, and the Racoon.

There were eighty-nine cases of syphilis and nine of gonorrhœa in the Gibraltar. All this disease was contracted while the ship was fitting out at Plymouth. Many of the cases were exceedingly obstinate, a circumstance which the surgeon is inclined to attribute to the severity of the weather, necessitating the closing of the ports, and the consequent vitiation of the atmosphere of the interior of the ship.

In the Leander there were thirty-two cases of syphilis and only one of gonorrhœa. The disease was contracted at Sheerness. The surgeon* of the Racoon, in which there were thirty-one cases of syphilis and eight of gonorrhœa, says :—

"The diseases of the genitals were, as might be expected in a ship so much on the Home Station, numerous and severe. The syphilitic cases were mostly all of the indurated sort, and complicated with buboes, nearly all of which went on to suppuration, and proved most intractable. They were for the most part treated by the cautious exhibition of mercury. Of those treated on board, two were subsequently

* Dr. James Young.

subsequently attacked by secondary syphilis; in one, indeed, the primary and secondary disease existed at the same time. The former he had managed to conceal until alarmed by the appearance of a copper-coloured eruption. The other had had the disease twice previously in the ship. When placed on the sick list for the secondary disease, the entire surface of the body was covered with a papular copper-coloured eruption, the glands at the back of the neck were enlarged, and he had effusion into the right elbow joint. Both were treated by the administration of biniodide of mercury, in small doses, so as to affect the system slightly, and with the very best effects. After three weeks the eruption on the body in both cases, and the effusion into the elbow joint in the latter, had entirely disappeared, and the enlarged glands were also very much diminished in size."

There were thirty-one cases of syphilis and six of gonorrhœa in the Scylla. The greater part of this disease was contracted at Sheerness, and the average duration of each case of syphilis on the sick list on board ship was about thirty-six days.

Wounds and Injuries.—A stoker, while oiling the trunnion of an engine, was mortally wounded by the bilge pump rod, which, entering beneath the left ear, and fracturing the lower jawbone, passed upwards towards the base of the skull, which it penetrated, and entered the brain. Death was almost instantaneous. Three men were killed by falling from aloft, the skull being more or less fractured in each case.

Three men were drowned by falling overboard, and one officer, while labouring under delirium tremens, jumped overboard and was drowned. There were thirty deaths altogether in the force, twenty-two being from disease, and eight from injuries of various kinds. The ratio of mortality was 7·8 per 1,000 of mean force, which is 1·7 per 1,000 below that of the preceding year.

Invalided.—Three men were invalided for the sequelæ of fever; ten for diseases of the brain and nervous system, of whom six were epileptics; twenty-seven for pulmonary diseases, twenty-four of these being consumptive; six for functional or organic disease of the heart; two for dysentery; one for inflammation of the spleen; seven for diseases of the genito-urinary organs, of whom four were for syphilis and two for stricture; sixteen for rheumatism, two for diseases of the joints, six for diseases of the special senses, one for scrofula, six for ulcer, seven for dyspepsia, one for tumour, five for wounds and injuries of various kinds, and four for hernia; making altogether 104, or in the ratio of 27·2 per 1,000 of mean force, which is a decrease of 7·3 per 1,000, as compared with the preceding year.

Table, No. 1.

Showing the Number of Cases of all Diseases and Injuries, and the Number Invalided and Dead, with the Ratio per 1,000 of Mean Force.

DISEASE OR INJURY.	Number of Cases.	Ratio per 1,000 of Mean Force.	Number Invalided.	Ratio per 1,000 of Mean Force.	Number Dead.	Ratio per 1,000 of Mean Force.
Continued and Remittent Fever	169	44·3	2	·5	3	·7
Intermittent Fever	66	17·3	1	·2	—	—
Small-pox	2	·5	—	—	—	—
Measles	16	4·1	—	—	—	—
Scarlatina	3	·7	—	—	2	·5
Disease of the Brain	2	·5	1	·2	—	—
Epilepsy	20	5·2	6	1·5	1	·2
Paralysis	6	1·5	1	·2	—	—
Insanity	3	·7	2	·5	—	—
Delirium Tremens	16	4·1	—	—	—	—
Neuralgia	9	2·3	—	—	—	—
Inflammation of the Lungs and Pleura	74	19·4	3	·7	6	1·5
Phthisis and Hæmoptysis	48	12·5	24	6·2	5	1·3
Influenza and Catarrh	685	179·7	—	—	—	—
Cynanche	272	71·3	—	—	—	—
Asthma	1	·2	—	—	—	—
Functional and Organic Disease of the Heart	20	5·2	6	1·5	1	·2
Hæmorrhoids	28	7·3	—	—	—	—
Varix	1	·2	—	—	—	—
Inflammation of the Stomach and Bowels	—	—	—	—	1	·2
Dysentery	21	5·5	2	·5	1	·2
Diarrhœa	276	72·4	—	—	—	—
Constipation and Colic	95	24·9	—	—	—	—
Inflammation of the Liver	10	2·6	—	—	—	—
Jaundice	5	1·3	—	—	—	—
Splenitis	3	·7	1	·2	—	—

TABLE, No. 1.—Showing the Number of Cases of all Diseases, &c.—*continued.*

DISEASE OR INJURY.	Number of Cases.	Ratio per 1,000 of Mean Force.	Number Invalided.	Ratio per 1,000 of Mean Force.	Number Dead.	Ratio per 1,000 of Mean Force.
Inflammation of the Bladder and Kidneys	12	3·1	1	·2	—	—
Syphilis	546	143·2	4	1·	—	—
Gonorrhœa	120	31·4	—	—	—	—
Orchitis	94	24·6	—	—	—	—
Stricture	11	2·9	2	·5	—	—
Incontinence of Urine, &c.	6	1·5	—	—	—	—
Rheumatism	421	110·4	16	4·1	2	·5
Gout	3	·7	—	—	—	—
Disease of the Bones and Joints	19	4·9	2	·5	—	—
Ophthalmia	60	15·7	2	·5	—	—
Amaurosis and Cataract	4	1·	2	·5	—	—
Otitis and Deafness	20	5·2	2	·5	—	—
Erysipelas	24	6·2	—	—	—	—
Scrofula	4	1·	1	·2	—	—
Bubo (*Symp.*)	107	28·	—	—	—	—
Phlegmon and Abscess	1,328	348·5	—	—	—	—
Ulcer	376	98·6	6	1·5	—	—
Psora	174	45·6	—	—	—	—
Eruptions, &c.	115	29·2	—	—	—	—
Dyspepsia and Debility	296	77·6	7	1·8	—	—
Scurvy	3	·7	—	—	—	—
Dropsy	7	1·8	—	—	—	—
Worms	1	·2	—	—	—	—
Tumour	1	·2	1	·2	—	—
Cancer	1	·2	—	—	—	—
Headache	40	10·4	—	—	—	—
Wounds and Injuries	1,180	309·7	5	1·3	4	1·
Burns and Scalds	81	21·2	—	—	—	—
Hernia	17	4·4	4	1·	—	—
Drowned	-	-	-	-	3	·7
Poison	3	·7	—	—	—	—
Suicide by Drowning	-	-	-	-	1	·2
TOTAL	6,925	1817·5	104	27·2	30	7·8

Table, No. 2.

Showing the Number of Days' Sickness from each Disease, and from Injuries, the Average Number of Men Sick Daily, with the Ratio per 1,000 of Mean Force.

DISEASE OR INJURY.	Number of Days' Sickness on Board.	Number of Days' Sickness in Hospital.	Total Number of Days' Sickness.	Average Number of Men Sick Daily.	Ratio per 1,000 of Mean Force.
Continued and Remittent Fever	1,965	864	2,829	7·7	2·
Intermittent Fever	564	49	613	1·6	·4
Small-pox	2	92	94	·2	—
Measles	144	115	259	·7	—
Scarlatina	25	535	560	1·5	·4
Vaccinia	18	—	18	·2	—
Disease of the Brain	18	62	80	·2	—
Epilepsy	204	96	300	·8	·2
Paralysis	114	199	313	·8	·2
Insanity	9	58	67	·1	—
Delirium Tremens	48	78	126	·3	—
Neuralgia	53	26	79	·2	—
Inflammation of the Lungs and Pleura	1,375	1,628	3,003	8·2	2·1
Phthisis and Hæmoptysis	1,321	2,206	3,527	9·6	2·5
Influenza and Catarrh	4,052	215	4,267	11·6	3·
Cynanche	1,642	651	2,293	6·2	·1
Asthma	5	14	19	—	—
Functional and Organic Disease of the Heart	396	132	528	1·4	·3
Hæmorrhoids	242	136	378	1·	·2
Varix	37	17	54	·1	—
Inflammation of the Stomach and Bowels	-	39	39	·1	—
Dysentery	1,561	278	1,839	5·	1·3
Diarrhœa	1,413	72	1,485	4·	1·
Constipation and Colic	499	46	545	1·4	·3
Inflammation of the Liver	166	176	342	·9	·2
Jaundice	66	68	134	·3	—
Splenitis	41	12	53	·1	—

TABLE, No. 2.—Showing the Number of Days' Sickness from each Disease, &c.—*cont^d.*

DISEASE OR INJURY.	Number of Days' Sickness on Board.	Number of Days' Sickness in Hospital.	Total Number of Days' Sickness.	Average Number of Men Sick Daily.	Ratio per 1,000 of Mean Force.
Inflammation of the Bladder and Kidneys	105	157	262	·7	·1
Syphilis	11,744	8,638	20,382	55·8	14·6
Gonorrhœa	1,749	380	2,129	5·8	1·5
Orchitis	1,441	454	1,895	5·1	1·3
Stricture	259	231	490	1·3	·3
Incontinence of Urine, &c.	40	65	105	·2	—
Rheumatism	4,658	2,349	7,007	19·1	5·
Gout	13	19	32	—	—
Disease of the Bones and Joints	312	371	683	1·8	·4
Ophthalmia	711	349	1,060	2·9	·7
Amaurosis and Cataract	82	45	127	·3	—
Otitis and Deafness	108	71	179	·4	·1
Erysipelas	193	127	320	·8	·2
Scrofula	45	181	226	·6	·1
Bubo (*Symp.*)	2,914	224	3,138	8·5	2·2
Phlegmon and Abscess	9,855	997	10,852	29·7	7·7
Ulcer	6,410	1,702	8,112	22·2	5·8
Psora	1,975	23	1,998	5·4	1·4
Eruptions, &c.	1,089	514	1,603	4·2	1·1
Dyspepsia and Debility	2,271	461	2,732	7·4	1·9
Dropsy	69	88	157	·4	·1
Worms	-	7	7	—	—
Headache, &c.	271	187	458	1·2	·3
Cancer	21	-	21	—	—
Wounds and Injuries	11,006	1,565	12,571	34·4	8·9
Burns and Scalds	993	50	1,043	2·8	·7
Hernia	252	19	271	·7	·1
Poison	12	-	12	—	—
TOTAL	74,560	27,138	101,698	278·5	73·1

TABLE, No. 3. - - - - - - -

SHOWING the Number INVALIDED from each - - - -

CAUSE OF INVALIDING.	Adventure.	Archer.	Buzzard.	Conqueror.	Cossack.	Curaçoa.	Dromedary.	Esk.	Falcon.	Fawn.	Gibraltar.	Himalaya.	Hydra.
Continued and Remittent Fever -	–	–	–	–	1	–	–	–	–	–	–	–	–
Intermittent Fever - - -	–	–	–	–	–	–	–	–	–	–	1	–	–
Paralysis - - - - -	–	–	–	–	–	–	–	–	–	–	1	–	–
Epilepsy - - - - -	–	–	–	–	–	–	–	–	–	–	–	–	–
Insanity - - - - -	–	–	–	–	–	1	–	–	–	–	1	–	–
Disease of the Brain - - -	–	–	–	–	–	–	–	–	–	–	–	–	–
Inflammation of the Lungs and Pleura	–	–	–	–	–	–	–	–	–	–	1	–	–
Phthisis and Hæmoptysis - -	–	–	–	–	–	1	1	1	–	1	1	1	–
Functional and Organic Disease of the Heart - - - -	1	–	–	–	–	1	–	–	–	–	–	–	–
Dysentery - - - - -	–	–	–	–	–	–	1	–	–	–	–	–	–
Splenitis - - - - -	–	–	–	–	–	–	–	–	–	–	–	–	–
Disease of the Kidneys - - -	–	–	–	–	–	–	–	–	–	–	–	–	–
Syphilis - - - - -	1	–	–	–	–	–	–	–	–	–	–	–	–
Stricture - - - - -	–	–	–	–	–	–	–	–	–	–	–	–	–
Rheumatism - - - - -	1	–	–	1	–	1	–	–	–	–	1	–	–
Disease of the Bones and Joints -	–	–	–	–	–	–	–	–	–	–	–	–	–
Amaurosis and Cataract - -	–	1	–	–	–	–	–	–	–	–	–	–	–
Otitis and Deafness - - -	–	–	–	–	–	–	–	–	1	–	–	–	–
Inflammation of the Eyes - -	–	–	–	–	–	–	–	–	–	–	–	–	–
Scrofula - - - - -	–	–	–	–	–	1	–	–	–	–	–	–	–
Ulcer - - - - - -	–	–	–	1	–	–	–	–	–	1	1	–	–
Dyspepsia and Debility - - -	–	–	–	1	–	–	–	–	1	–	1	–	–
Tumour - - - - -	–	–	–	–	–	1	–	–	–	–	–	–	–
Wounds and Injuries - - -	1	–	1	–	–	–	1	–	–	–	–	–	1
Hernia - - - - - -	1	–	–	–	–	–	–	–	–	–	–	–	–
TOTAL - - -	5	1	1	3	1	6	3	1	2	2	8	1	1

- - - - - - - - TABLE, No. 3.

- - - - Ship employed on the IRREGULAR FORCE.

Imperieuse.	Leander.	London.	Megæra.	Orontes.	Pelorus.	Racoon.	Sanspareil.	Shearwater.	Speedwell.	Supply.	Sutlej.	Tamar.	Turtar.	Vigilant.	Wye.	TOTAL.
1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
-	1	-	1	1	1	1	1	-	-	-	-	-	-	-	-	1
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	6
-	-	-	-	-	-	1	-	-	-	-	-	-	-	-	-	2
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1
-	-	1	-	-	-	-	-	-	-	-	-	-	-	-	1	3
1	5	2	1	-	1	5	-	1	-	-	1	-	-	1	-	24
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
-	1	-	-	1	-	1	-	1	-	-	-	-	-	-	-	6
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	1	-	-	-	-	-	-	-	1
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	1	-	-	-	-	-	-	-	-	-	1
-	-	-	1	-	1	-	1	-	-	-	-	-	-	-	-	4
-	-	-	1	-	-	-	-	1	-	-	-	-	-	-	-	2
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
-	6	-	-	1	-	1	-	-	1	-	-	1	1	-	1	16
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	2
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	1	-	-	-	-	-	-	-	-	-	2
-	-	-	-	-	-	-	-	1	-	-	-	-	-	-	-	2
-	1	-	-	-	-	-	1	-	-	-	-	-	-	-	-	2
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1
-	1	-	-	-	-	1	-	-	-	-	-	-	-	-	1	6
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	2	-	2	-	-	-	-	-	-	-	-	-	7
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	5
-	-	-	-	1	-	-	-	-	-	1	-	-	-	1	-	4
4	15	3	4	6	3	14	3	5	1	1	1	1	1	2	5	104

TABLE, No. 4.

SHOWING the Number of DEATHS in each Ship

CAUSE OF DEATH.	Alecto.	Archer.	Buzzard.	Conqueror.	Dromedary.	Gibraltar.	Himalaya.	Imperieuse.	Leander.
Continued and Remittent Fever	–	1	–	–	–	–	–	–	1
Scarlatina	–	–	–	–	1	1	–	–	–
Epilepsy	–	–	–	–	–	–	–	–	–
Inflammation of the Lungs and Pleura	–	–	1	–	–	1	–	–	–
Phthisis and Hæmoptysis	–	–	–	–	–	–	–	1	1
Disease of the Heart	–	–	–	–	–	–	–	–	–
Disease of the Bowels	–	–	–	–	–	1	–	–	–
Dysentery	–	–	–	–	–	–	–	1	–
Rheumatism	–	–	–	–	–	–	–	–	–
Wounds and Injuries	–	–	1	1	–	–	1	–	–
Suicide by drowning	1	–	–	–	–	–	–	–	–
Drowned	–	–	–	–	–	–	–	–	–
TOTAL	1	1	2	1	1	3	1	2	2

- - - - - - Table, No. 4.

- - - - employed on the Irregular Force.

London.	Megæra.	Orontes.	Racoon.	Salamander.	Sansparell.	Scylla.	Speedwell.	Sutlej.	Ternagant.	Vigilant.	Wye.	Total.
–	–	1	–	–	–	–	–	–	–	–	–	3
–	–	–	–	–	–	–	–	–	–	–	–	2
–	–	–	–	–	–	–	–	–	1	–	–	1
–	–	1	–	–	1	–	–	–	–	1	1	6
–	–	–	–	–	1	–	1	–	–	1	–	5
1	–	–	–	–	–	–	–	–	–	–	–	1
–	–	–	–	–	–	–	–	–	–	–	–	1
–	–	–	–	–	–	–	–	–	–	–	–	1
–	1	–	–	–	–	1	–	–	–	–	–	2
–	–	–	1	–	–	–	–	–	–	–	–	4
–	–	–	–	–	–	–	–	–	–	–	–	1
–	–	–	–	1	1	–	–	1	–	–	–	3
1	1	2	1	1	3	1	1	1	1	1	1	30

Table, No. 5.

Showing the Names of the Ships; the Average Complement and the Mean Force; the Number of Cases in each Ship; the Total Number of Days' Sickness on Board, and the Average Number of Men Sick Daily.

C. Commissioned. P. O. Paid off. C. S. Station changed.

RATE	NAME OF SHIP.	Where Commissioned.	When Commissioned	Number of Guns.	Tonnage.	Horse Power.	Period.	Average Complement.	Average Complement Corrected for Time.	Number of Cases.	Number of Days' Sickness on Board.	Average Number Men Sick Daily. of	Ratio per 1,000 of Mean Force of each Ship.	Number Discharged to Hospital.
Second Rates -	Conqueror - - - -	Sheerness -	24 Nov. 1863	40	2,845	5,500	29 Nov. to 31 Dec.	500	40	178	1,104	3·	75·	13
	Gibraltar - - - -	Devonport -	12 Sept. 1863	81	3,729	S. 800	10 Sept. to 31 Dec.	820	270	671	6,845	18·7	69·2	54
	London - - P. O.	Devonport -	16 May 1859	86	2,687	S. 500	1 Jan. to 5 Feb.	850	70	66	1,098	3·	42·8	19
Third Rates -	Mars - - - - -	Sheerness -	28 June 1859	80	2,573	S. 400	1 to 31 Jan. -	780	65	86	1,268	3·4	52·3	-
	Sanspareil - - - -	Devonport -	7 June 1862	10	2,339	S. 400	1 Jan to 11 June	400	165	130	1,814	4·9	29·6	1
Fourth Rates -	Aurora - - - -	Devonport -	18 Nov. 1863	35	2,558	S. 400	16 Nov to 31 Dec.	420	50	98	407	1·1	22·2	22
	Imperieuse - - P. O.	Portsmouth	21 June 1859	51	2,358	S. 360	1 Jan to 21 Mar.	440	110	148	5,147	14·1	128·1	-
	Leander - - - C.	Sheerness -	14 Apr. 1863	39	2,760	S. 400	14 Apr. to 30 Sept.	560	275	595	5,148	14·1	51·2	17
	Orlando - - C. S.	Devonport -	17 Dec. 1861	46	3,740	S.1,000	1 April to 30 June	600	150	137	1,308	3·5	23·3	7
	Sutlej - - - - C.	Portsmouth	20 Sept. 1862	39	3,066	S. 500	1 Jan. to 31 Mar.	595	150	294	4,052	11·1	74·	-
Fifth Rate - -	Curaçoa - - - -	Portsmouth	22 April 1863	31	1,571	S. 350	20 Apr. to 30 Sept.	320	155	257	3,478	9·5	61·2	19
	Termagant - - P. O.	Portsmouth	29 Jan. 1859	25	1,547	S. 310	1 Jan. to 8 Jan.	300	5	7	26	-	-	5
Sixth Rates -	Archer - - - -	Woolwich -	30 Mar. 1863	13	973	S. 202	1 Apr. to 30 June	185	45	136	1,041	2·8	62·2	1
	Cossack - - - -	Sheerness -	19 May 1863	20	1,296	S. 250	19 May to 30 June	150	20	44	259	·7	35·	4
	Esk - - - - -	Portsmouth	20 May 1863	21	1,169	S. 250	20 May to 30 Sept.	300	110	160	1,822	4·9	44·5	5
	Pelorus - - - C.	Devonport -	11 Sept. 1863	21	1,464	S. 400	1 Oct. to 31 Dec.	340	85	173	2,130	5·8	68·2	11
	Racoon - - - C	- - - -	-	-	-	-	1 Feb. to 31 Dec.	285	260	414	4,536	12·4	47·6	38
	Scylla - - - - C.	Sheerness -	9 Sept. 1863	21	1,467	S. 400	8 Sept. to 31 Dec.	305	100	249	3,159	8·6	86·	9
	Tartar - - - C. S.	Sheerness -	16 Aug. 1860	20	1,296	S. 250	1 Oct. to 31 Dec.	270	65	65	548	1·5	23·7	-
	Valorous - - - C.	Devonport -	15 April 1863	16	1,527	P. 400	15 Apr. to 30 June	230	55	91	818	2·2	40·	4
	Wasp - - - - C.	Portsmouth	16 Nov. 1863	13	974	S. 100	16 Nov. to 31 Dec.	175	20	47	249	·6	30·	4

Sloops	Alecto C.	Woolwich	23 Jan. 1863	3	800	P. 200	21 Jan. to 30 June	120	55	139	1,338	3·6	65·4	7
	Buzzard C.	Devonport	27 Jan. 1863	6	980	P. 300	25 Jan. to 31 Mar.	170	25	52	395	1·	40·	4
	Falcon C.	Portsmouth	6 May 1859	17	751	S. 100	22 Oct. to 31 Dec.	210	50	97	770	2·1	42·	5
	Fawn P. O.	Sheerness	3 Nov. 1859	17	751	S. 100	1 Jan. to 11 April	135	35	59	885	2·4	68·5	4
	Royalist C.	Devonport	5 Nov. 1863	11	669	S. 150	5 Nov. to 31 Dec.	140	20	31	304	·8	40·	1
	Salamander C.	Sheerness	10 Dec. 1863	6	818	P. 220	9 Dec. to 31 Dec.	75	5	5	19	–	–	–
	Shearwater C.	Devonport	12 Dec. 1862	4	669	S. 150	1 Jan. to 31 Mar.	135	35	66	866	2·3	65·7	–
Gun Vessels	Jaseur C.	Sheerness	8 April 1863	5	425	S. 80	8 Apr. to 30 June	80	20	22	187	·5	25·	–
	Kite (Steam Tug) P. O.	– – –	– – –	–	300	P. 170	21 Jan. to 31 Mar.	35	5	10	125	·3	60·	–
	Osprey C.	Woolwich	3 Jan. 1863	4	682	S. 200	2 Jan. to 30 June	90	45	90	847	2·3	51·1	3
	Pandora C.	Portsmouth	20 Mar. 1863	5	426	S. 80	1 Apr. to 30 June	65	15	32	351	·9	60·	–
	Snipe C.	Sheerness	8 Aug. 1863	5	431	S. 80	8 Aug. to 31 Dec.	75	30	43	407	1·1	36·6	2
	Sparrow C.	Devonport	23 Mar. 1863	5	430	S. 80	1 Apr. to 30 June	75	20	30	213	·5	25·	–
	Speedwell C.	Woolwich	8 Sept. 1863	5	428	P. 80	8 Sept. to 31 Dec.	55	15	76	746	2·	133·3	8
	Vigilant C.	Sheerness	13 Feb. 1863	4	680	S 200	20 Feb. to 30 Sept.	90	55	140	368	1·	18·1	9
Steam Vessels	Caradoc	Woolwich	16 Jan. 1863	2	676	P. 350	16 Jan. to 31 Mar.	65	15	20	156	·4	26·6	7
	Hydra	Sheerness	9 June 1858	6	818	P. 220	10 Nov. to 31 Dec.	105	15	28	151	·4	26·6	4
	Recruit P. O.	– – –	– – –	–	–	–	1 Aug. to 31 Aug.	45	5	19	106	·2	40·	4
	Triton C.	Devonport	9 Feb. 1863	3	654	P. 260	1 Feb. to 31 Mar.	80	15	27	321	·8	53·3	–
Troop Ships	Adventure	Woolwich	17 April 1862	2	1,794	S. 400	year	150	150	362	4,803	13·1	87·3	13
	Himalaya	Devonport	1 July 1861	6	3,453	S. 700	year	220	220	329	2,718	7·4	33·6	22
	Megæra	Portsmouth	14 Mar. 1860	6	1,395	S. 350	year	165	165	322	4,194	11·4	69·	7
	Orontes C.	Devonport	23 April 1863	4	2,812	S. 500	1 May to 31 Dec.	190	125	229	2,056	5·6	44·8	39
	Tamar C.	Sheerness	10 Oct. 1863	2	2,812	S. 500	4 Nov. to 31 Dec.	190	30	39	281	·7	23·3	4
Store Ships	Dromedary	Woolwich	28 May 1862	–	654	S. 100	year	85	85	78	398	2·4	28·2	6
	Supply	Woolwich	8 Dec 1860	4	638	S. 80	year	55	55	85	569	1·5	27·2	11
	Wye	Woolwich	6 April 1861	2	700	S. 100	year	60	60	127	331	·9	15·	18
	Industry	Woolwich	5 June 1861	2	638	S. 80	year	60	60	43	326	·8	13·3	4
Receiving Ship	Egmont	Portsmouth	23 Dec. 1862	4	1,760	–	7 Jan. to 31 Mar.	265	65	174	2,004	5·4	83·	4
Ironclad	Prince Consort	Devonport	14 Jan. 1864	35	4,045	S. 1,000	27 Oct. to 10 Nov.	395	15	24	112	·3	20·	2
Marines at Falkland Islands. C.		– – –	–	–	–	29 Oct. to 31 Dec.	20	5	5	65	–	–	–
Marines, Japan. C.		– – –	–	–	–	19 Dec. to 31 Dec.	540	25	83	538	1·4	56·	–

TABLE, No. 6. - - - - - - - -

SHOWING the Number of CASES of all DISEASES and - - - - -

DISEASE OR INJURY.	Adventure.	Alecto.	Archer	Aurora.	Buzzard.	Caradoc.	Conqueror.	Cossack.	Curaçoa.	Dromedary.	Egmont.	Esk.	Falcon.	Fawn.	Gibraltar.
Continued and Remittent Fever	42	4	22	2	1	1	–	2	22	5	–	–	1	–	1
Intermittent Fever	–	–	2	–	–	–	1	–	1	2	–	–	–	–	8
Vaccinia	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Scarlatina	–	–	–	–	–	–	–	–	–	1	–	–	–	–	2
Measles	–	–	–	3	–	–	–	–	–	–	–	–	–	–	–
Small-pox	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Disease of the Brain	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Epilepsy	1	–	–	–	–	–	–	–	–	–	–	1	–	–	3
Paralysis	–	–	–	1	–	–	–	–	–	–	–	–	–	–	–
Insanity	–	–	–	–	–	–	1	–	1	–	–	–	–	–	1
Delirium Tremens	3	1	–	–	–	–	–	–	–	–	–	–	–	–	2
Neuralgia	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Inflammation of the Lungs and Pleura	–	3	–	3	2	–	2	–	6	–	1	2	–	1	7
Phthisis and Hæmoptysis	1	–	–	–	–	–	–	–	1	1	–	4	–	1	3
Influenza and Catarrh	64	15	14	6	–	1	35	2	17	–	13	6	6	8	78
Cynanche	10	2	–	–	2	1	17	–	13	1	7	6	3	–	66
Asthma	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Parotidis	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Functional and Organic Disease of the Heart	–	–	–	–	–	–	–	1	1	–	–	–	–	–	3
Hæmorrhoids	1	–	–	1	–	–	1	–	–	1	2	–	–	–	9
Varix	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Dysentery	1	–	–	–	–	–	1	–	–	2	–	1	1	–	–
Diarrhœa	32	15	3	5	–	–	1	–	3	6	7	4	5	–	17
Constipation and Colic	5	2	2	4	–	–	–	1	1	5	2	6	3	–	6
Inflammation of the Liver	–	–	–	–	–	–	–	–	–	–	1	–	–	–	–
Jaundice	1	–	–	–	1	–	–	–	–	–	–	–	–	–	–
Splenitis	1	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Inflammation of the Bladder and Kidneys	–	–	–	1	–	–	–	–	–	–	–	–	–	–	5
Syphilis	23	5	4	8	5	3	14	6	19	4	11	12	13	1	89
Gonorrhœa	10	1	2	–	–	1	6	–	1	1	4	3	–	–	9
Orchitis	1	2	1	1	2	–	1	1	9	3	3	6	–	–	9
Stricture	1	–	–	1	–	–	1	–	–	–	2	–	–	–	–
Incontinence of Urine, &c.	–	–	–	–	–	–	–	–	–	–	1	–	–	–	–
Rheumatism	34	8	8	4	6	–	12	8	15	7	5	12	9	8	28
Gout	–	–	–	–	–	–	–	–	–	–	–	–	–	–	1
Disease of the Bones and Joints	–	–	–	1	–	–	3	–	1	1	–	1	1	–	–
Ophthalmia	1	2	1	3	1	–	1	1	3	–	1	2	–	–	2
Amaurosis and Cataract	–	–	1	–	–	–	–	–	–	–	d 1	–	–	–	–
Otitis and Deafness	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Erysipelas	3	1	1	–	–	1	–	–	1	1	–	1	–	–	3
Scrofula	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Bubo (*Symp.*)	3	2	1	2	–	1	3	–	10	–	1	5	–	1	3
Phlegmon and Abscess	30	19	51	8	14	2	18	8	66	7	38	42	10	27	103
Ulcer	22	4	1	8	3	3	14	–	6	3	14	6	–	–	45
Psora	1	12	–	–	–	–	1	–	–	–	10	–	8	–	29
Eruptions	–	3	1	13	1	1	3	3	6	13	9	1	2	1	5
Dyspepsia and Debility	32	10	8	7	5	–	4	–	2	1	4	13	1	3	34
Scurvy	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Worms	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Dropsy	1	–	–	–	–	–	–	–	–	–	–	–	1	–	–
Cancer	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Headache, &c.	–	3	–	1	–	–	3	1	2	–	–	1	5	–	1
Wounds and Injuries	34	22	12	13	9	5	32	9	46	12	34	25	25	8	96
Burns and Scalds	3	2	1	2	–	–	3	–	4	1	3	1	2	–	3
Hernia	1	1	–	–	–	–	–	–	–	–	–	–	–	–	–
Poisoned	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Tumour	–	–	–	–	–	–	–	–	1	–	–	–	–	–	–
TOTAL	362	139	136	98	52	20	178	44	257	78	174	160	97	59	671

a 9 Febricula. *b* 1 Laryngitis. *c* 1 Hydrocele. *d* Hæmeralopia.

Table, No. 6.

Injuries in each Ship employed in the Irregular Force.

Himalaya.	Hydra.	Imperieuse.	Industry.	Jaseur.	Kite.	Leander.	London.	Marines, Falkland.	Marines, Japan.	Mars.	Megæra.	Orlando.	Orontes.	Osprey.	Pandora.	Pelorus.	Prince Consort.	Racoon.	Recruit.	Royalist.	Salamander.	Sanspareil.
2	1	–	–	–	–	11	1	–	–	–	a 12	1	6	3	3	–	–	5	–	1	–	–
5	–	9	–	–	–	1	–	–	–	–	3	5	–	–	–	2	–	2	–	–	–	13
–	–	–	–	–	–	4	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
–	–	–	–	–	–	13	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
–	–	–	–	–	–	1	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	1	–	–	–	–
–	–	–	–	–	–	1	–	–	–	2	2	–	1	–	–	1	–	–	–	–	–	–
–	–	1	–	–	–	–	–	–	–	–	–	–	1	1	–	–	–	–	–	–	–	–
–	–	–	–	–	–	–	–	–	–	–	–	3	–	–	–	–	–	–	–	–	–	–
–	–	–	–	–	–	3	–	–	–	–	1	–	–	–	–	–	–	1	–	–	–	1
6	–	1	–	–	–	3	1	–	–	–	9	1	3	–	–	1	–	–	–	–	–	1
–	–	1	3	–	–	4	1	–	2	–	4	–	1	2	–	2	–	7	–	–	–	2
61	2	19	6	2	1	55	6	1	19	23	34	16	18	5	2	6	2	27	4	3	–	4
11	1	–	2	–	–	b 30	7	2	3	–	8	6	2	1	–	4	1	20	–	–	–	8
1	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
–	–	–	–	–	–	3	–	–	–	–	–	–	1	2	–	–	–	–	–	2	–	3
–	–	–	–	–	–	3	–	–	–	–	–	1	1	1	–	2	–	1	–	–	–	–
–	–	10	–	–	–	–	–	–	–	–	1	–	–	–	–	1	–	–	–	–	–	1
24	7	11	–	1	1	15	2	–	3	2	10	5	7	6	5	2	1	7	1	1	–	6
8	–	1	–	1	–	2	–	–	–	–	–	–	4	–	–	–	1	3	1	–	–	8
–	–	–	–	–	–	–	–	–	–	–	1	–	–	1	–	1	–	1	–	–	–	2
1	–	–	–	–	–	–	–	–	–	–	1	–	–	–	–	–	–	–	–	–	–	–
2	–	–	–	–	–	–	–	–	–	–	2	–	–	–	–	1	–	1	–	–	–	–
21	1	2	1	3	–	32	6	1	18	2	15	19	30	2	3	23	1	31	–	1	2	14
4	–	1	1	–	–	1	–	–	11	–	5	5	6	1	–	3	–	8	1	1	1	3
5	–	5	–	–	1	2	1	–	–	–	4	5	2	2	–	2	–	6	–	–	–	3
–	–	–	–	–	–	–	–	–	–	–	1	–	–	–	–	–	–	–	–	–	–	2
14	–	9	–	–	–	2	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
–	–	–	–	–	–	50	4	–	4	2	12	7	20	7	1	4	3	22	2	2	–	4
–	–	1	–	–	–	1	–	–	–	–	1	–	–	–	–	–	–	–	–	–	–	–
5	–	–	–	–	–	–	–	–	–	–	2	–	–	–	–	1	–	1	–	–	–	–
1	–	–	–	1	–	5	–	–	1	2	2	2	3	1	–	4	2	2	–	–	–	–
–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	1	–	–	–	–
1	–	–	–	–	–	–	–	–	–	2	2	–	–	1	–	–	–	–	–	–	–	–
–	–	–	–	–	–	1	–	–	–	–	–	2	–	1	–	–	–	e 2	–	1	–	1
–	–	–	1	–	–	–	–	–	–	–	–	2	–	–	–	–	–	–	–	–	–	–
9	–	–	2	–	–	8	–	–	–	–	7	–	3	2	–	12	1	15	–	–	–	2
43	2	20	10	6	–	151	16	1	6	19	67	18	35	18	9	30	3	111	2	6	1	19
20	3	6	–	–	–	45	3	–	7	10	20	9	14	7	–	9	–	24	–	4	–	4
4	–	–	5	–	–	16	–	–	–	–	7	–	2	3	–	23	–	19	–	–	–	–
3	1	–	–	–	–	8	–	–	–	–	1	2	2	–	1	1	–	10	–	1	–	2
7	–	2	5	1	–	22	–	–	4	–	f 37	–	13	6	1	2	–	13	1	2	–	1
–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
1	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
–	–	–	–	1	–	–	–	–	–	–	–	–	–	–	–	2	–	–	–	–	–	–
–	–	–	–	–	–	–	–	–	–	–	1	–	–	–	–	–	–	–	–	–	–	–
–	–	–	–	–	–	4	–	–	–	–	–	–	–	1	–	–	–	1	–	–	–	2
61	6	47	7	5	5	87	17	–	5	21	44	25	51	15	7	32	8	67	7	7	–	16
7	–	3	–	1	1	11	1	–	–	–	4	2	2	1	–	2	1	5	–	–	–	–
1	–	–	–	–	–	–	–	–	–	–	2	1	1	–	–	–	–	–	–	–	–	–
–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	3
–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
329	24	148	43	22	10	595	66	5	83	86	322	137	229	90	32	173	24	414	19	31	4	129

continued on page 288.

e 2 Erythema.

f 11 Gastric Irritation, and 1 Gastrodynia.

TABLE, No. 6.—Showing the Number of Cases of all Diseases and Injuries, &c.—*continued.*

continued from page 287.

DISEASE OR INJURY.	Scylla.	Shearwater.	Snipe.	Sparrow.	Speedwell.	Supply.	Sutlej.	Tamar.	Tartar.	Termagant.	Triton.	Valorous.	Vigilant.	Wasp.	Wye.	TOTAL.
Continued and Remittent Fever	4	*a* 4	*b* 5	1	–	–	–	–	–	–	–	*c* 2	1	*c* 2	*d* 1	169
Intermittent Fever	1	1	–	–	–	1	–	1	1	–	–	–	–	–	7	66
Vaccinia	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	4
Scarlatina	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	3
Measles	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	16
Small-pox	–	–	–	–	–	1	–	–	–	–	–	–	–	–	–	2
Disease of the Brain	–	–	–	–	–	1	–	–	–	–	–	–	–	–	–	2
Epilepsy	2	–	–	1	–	–	1	1	–	–	–	–	–	3	–	20
Paralysis	–	–	–	–	–	–	1	–	–	–	–	–	–	–	1	6
Insanity	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	3
Delirium Tremens	–	–	–	–	–	1	–	1	1	–	–	–	–	1	1	16
Neuralgia	–	–	1	–	–	1	–	–	–	–	–	–	2	–	–	9
Inflammation of the Lungs and Pleura	3	1	1	–	–	3	7	–	–	–	1	1	3	–	–	74
Phthisis and Hæmoptysis	1	1	1	–	–	–	2	–	–	–	–	1	–	–	–	48
Influenza and Catarrh	18	5	–	6	9	18	16	4	8	–	1	1	11	–	7	685
Cynanche	8	–	3	–	2	–	10	4	2	–	–	3	1	3	1	271
Asthma	–	–	–	–	–	–	–	–	–	–	–	–	–	–	1	1
Parotidis	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	1
Functional and Organic Disease of the Heart	–	1	–	–	–	–	–	1	–	–	1	1	–	–	–	20
Hæmorrhoids	–	–	–	1	–	–	1	–	–	–	1	–	1	–	–	28
Varix	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	1
Dysentery	–	–	–	–	–	1	–	–	–	–	–	–	–	–	2	21
Diarrhœa	5	1	2	1	9	15	8	1	–	1	1	1	10	1	5	276
Constipation and Colic	6	2	2	–	1	2	9	–	1	–	–	1	3	–	2	95
Inflammation of the Liver	–	–	–	–	–	–	2	–	1	–	–	–	–	–	–	10
Jaundice	1	–	–	–	–	–	–	–	–	–	–	–	–	–	–	5
Splenitis	–	1	–	–	–	–	–	–	–	–	–	–	–	–	–	3
Inflammation of the Bladder and Kidneys	–	–	–	–	–	–	–	–	–	–	–	1	–	–	–	12
Syphilis	31	6	2	–	7	4	13	4	7	–	4	9	5	5	5	546
Gonorrhœa	6	2	1	–	–	–	3	3	–	–	1	2	1	8	4	120
Orchitis	3	2	1	–	–	–	6	–	–	–	1	1	–	1	2	94
Stricture	–	1	–	–	–	–	–	–	–	–	–	–	–	2	–	11
Incontinence of Urine, &c.	3	–	–	–	–	–	–	–	–	–	–	–	–	–	–	6
Rheumatism	24	1	–	–	9	3	25	4	5	2	1	5	8	1	2	421
Gout	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	3
Disease of the Bones and Joints	–	1	–	–	1	–	3	–	–	–	–	–	–	–	2	19
Ophthalmia	1	–	–	–	2	–	7	–	–	–	–	–	–	–	2	60
Amaurosis and Cataract	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	4
Otitis and Deafness	–	2	–	2	–	1	–	–	–	–	–	–	–	1	–	20
Erysipelas	3	–	–	–	–	1	5	–	–	–	–	–	–	–	1	24
Scrofula	–	–	–	–	–	–	1	–	–	–	–	–	–	–	–	4
Bubo (*Symp.*)	2	1	–	–	–	3	3	–	1	–	1	–	1	1	1	107
Phlegmon and Abscess	57	16	8	14	11	8	55	6	8	1	5	21	47	9	26	1,328
Ulcer	10	6	1	1	1	3	18	4	2	–	–	4	6	–	6	376
Psora	–	1	–	–	–	–	18	–	–	–	1	–	5	3	6	174
Eruptions	1	–	1	–	1	1	8	–	2	–	–	3	–	–	–	111
Dyspepsia and Debility	6	–	8	–	–	1	9	–	1	–	2	4	8	1	15	296
Scurvy	–	–	–	–	–	–	–	–	–	–	–	–	3	–	–	3
Worms	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	1
Dropsy	1	–	–	–	–	–	–	–	–	–	–	–	1	–	–	7
Cancer	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	1
Headache, &c.	2	–	–	–	–	1	4	–	–	–	5	–	1	–	2	40
Wounds and Injuries	44	10	5	3	21	15	52	4	25	3	1	27	20	4	24	1,180
Burns and Scalds	3	–	1	–	2	–	3	–	–	–	–	3	1	1	1	81
Hernia	3	–	–	–	–	1	3	1	–	–	–	–	1	–	–	17
Poisoned	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	3
Tumour	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	1
TOTAL	249	66	43	30	76	85	293	39	65	7	27	91	140	47	127	6,925

a 1 Yellow Fever. *b* 4 Febricula. *c* 2 ditto. *d* 1 ditto. *e* 1 Hydrocele.

TOTAL FORCE.

Total Force.

THE Total Force in 1863 corrected for time was 54,090 men; and the total number of cases of disease and of injuries entered in the returns was 78,664, so that there were considerably under three entries on the sick list to every two men of the force. The number invalided for disease was 1,688, and for injuries 215, making a total of 1,903, or in the ratio of 35·1 per 1,000, which is a slight increase as compared with the preceding year. There were 414 deaths from various forms of disease, and 205 from injuries and drowning, the former being in the ratio of 7·6, and the latter of 3·7; making the total rate of mortality 11·3 per 1,000 of mean force, which is a decrease of 4· per 1,000 as compared with the ratio for 1862.

The number of cases of disease and injury per man on the Home Station was 1·; on the Mediterranean Station, 1·6; North America and the West Indies, 1·5; South East Coast of America, 1·4; Pacific, 1·4; West Coast of Africa, 1·9; Cape of Good Hope, 1·9; East Indies and China, 2·2; Australia, 1·2; and in the Irregular Force, 1·8; making altogether a mean of 1·4 for the whole force, which is below the average of the preceding year.

The ratio per 1,000 of mean force of men sick daily on board ship and in hospital was on the Home Station, 45·8; on the Mediterranean, 53·3, which is below that of the previous year; North America and the West Indies, 45·3; South East Coast of America, 56·7; Pacific, 50·1; West Coast of Africa, 61·8; Cape of Good Hope, 79·, a large ratio still, but considerably less than in the preceding year, a fact accounted for by there being less exposure to river

Total Force.

service in the Mozambique Channel; East Indies and China, 77·6, a reduction to precisely the same extent almost as obtained on the Cape Station, and from similar causes, the squadron having been removed in a great measure from river service in China, and being employed mostly in Japan; Australia, 41·3; and in the Irregular Force, 73·1; the average number of men sick daily in the whole force being in the ratio of 54·3 per 1,000 of mean force, which is 3·2 per 1,000 below what obtained in 1862.

Compared with the preceding year there was a reduction in the rate of invaliding on the Home, North American, and West Indian, Brazilian, and Pacific stations, and in the Irregular Force; but on all the other stations the ratio of invaliding was increased, and in some of them very much so. On the Home Station the ratio of invaliding per 1,000 of mean force was 28·9: in 1862 it was 30·8; in North America and the West Indies it was 26·3; in 1862 it was 32·3; in the Brazils it was 26·2, while in 1862 it was 40·8; in the Pacific, it was 32·2, in the previous year it was 34·; and in the Irregular Force it was 27·2, while in the preceding year it was 34·5. But, on the other hand, the invaliding rate in the Mediterranean was 42·8, against 35·1 of 1862; on the West Coast of Africa it was 41·4, in 1862 it was 23·2; Cape of Good Hope, 38·5, against 32·2 of the previous year; in the East Indies and China 64, in the preceding year it was 46·7; and in Australia 29·3, against 12·6 in 1862. The increase of invaliding on the Cape of Good Hope and East India and China stations is doubtless referable to the operations in which the squadrons had been employed in the previous year, while, as regards the West Coast of Africa the rate of invaliding will always be liable to vary according to the length of time the individual vessels of the squadron may have been employed upon it. The total number invalided was 1,903, which is in the ratio of 35·1 per 1,000 of mean force, an increase, as compared with the preceding year, of 2·1 per 1,000.

There is a very considerable decrease in the ratio of mortality, as compared with the previous year. On the Home Station the ratio of mortality from disease was 4·9 per 1,000, and from injuries and drowning 2·1; Mediterranean, from disease 7·2, from injuries, &c. 2·3; North America and the West Indies, from disease 4·8, from injuries, &c. 3·1; South-east Coast of America, from disease 5·, from injuries, &c. 9·5;

9·5; Pacific, from disease 5·9, from injuries, &c. 3·7; West Coast of Africa, from disease 14·6, from injuries 7·7; Cape of Good Hope, from disease 11·1, injuries, &c. 5·1; East Indies and China, from disease 21·2, from injuries, &c. 10·6; Australia, from disease 8·6, from injuries, &c. 18·9; and in the Irregular Force, from disease 5·7, and from injuries, &c. 2·1. Altogether, there were 414 deaths from disease, and 205 from injuries and drowning, the former being in the ratio of 7·6 per 1,000 of mean force and the latter 3·7, making a total death-rate of 11·3 per 1,000, which is 4· per 1,000 below the ratio of mortality of the preceding year. Total Force.

As compared with the previous year, there is a very great diminution in the death-rates on the North American and West Indian and the East Indies and China stations, and a reduction also, although to a much less extent, on the Home, Mediterranean, South-east Coast of Ameriea, and Cape of Good Hope stations, and in the Irregular Force. The only stations on which an increase is shown are the Pacific, West Coast of Africa, and the Australian. On the two former stations the increase is very small, but on the Australian station it was nearly three times as great as that in 1862.

On the North American and West Indian stations, in the year 1861, yellow fever prevailed epidemically in certain vessels of the squadron, and the result was a death-rate of 42·1 per 1,000 of mean force. In 1862, that fatal fever was much less prevalent, and the ratio of mortality was in consequence reduced to 20·2 per 1,000; and in the present year, yellow fever being almost if not altogether absent, the death-rate is reduced to 7·9, the lowest ratio, as has been previously noticed, ever reached in all probability on that station. Considering that the squadron comprised thirty-two vessels of various kinds, the majority of which were actively employed cruising in the Gulf of Mexico, or amongst the West India Islands, such a ratio certainly speaks favorably for the naval service, particularly when it is considered that the ratio of mortality from disease was only 4·8, that from injuries of various kinds and drowning being 3·1 per 1,000.

Again, on the East Indies and China station in 1861, there was a cessation of all warlike operations in China, and, as a consequence, little or no river service. The result of this

Total Force.

this was a death-rate of 26·1, the mean death-rate of the station for a period of seven years being 45·4 per 1.000. In 1862, however, the operations against the Taepings involved much river service both at Shanghai and Ningpo; and in the former river the expedition to Kahding was followed by so disastrous an outbreak of cholera that the ratio of mortality on the station rose to 66·3 per 1,000. In the present year, when the squadron was employed away from rivers, and chiefly on the Coast of Japan, the death-rate again fell to 31·8 per 1,000.

Similar observations might be made upon other stations, particularly on the West Coast of Africa and the Cape of Good of Good Hope, all tending, however, to the same conclusion; viz., that the sick-rate in vessels is almost altogether dependent on the nature of the climate and the service on which they may be employed, and rarely if ever on any inherent defect in the vessel itself, and certainly not on the training or discipline to which the men are subjected.

The following Table shows the ratio per 1,000 of mean force, of cases and of deaths from the different classes of disease on the various stations:

CLASS OF DISEASE.	Home.		Mediterranean.		North America and West Indies.		Brazils.		Pacific.	
	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.
Continued and Remittent Fever	15·2	·3	64·1	1·4	99·	·5	93·4	1·4	65·2	·6
Yellow Fever	–	–	–	–	1·2	·7	–	–	–	–
Intermittent Fever	5·8	–	25·1	–	21·7	–	3·6	–	25·7	–
Eruptive Fevers	11·	·2	2·5	–	·1	–	43·7	·7	1·2	–
Disease of Brain, Nerves, &c.	9·8	·6	11·8	·6	14·3	·3	14·4	·7	11·	·9
Disease of Respiratory Organs	185·1	2·1	242·	2·4	197·4	1·2	133·4	1·4	248·5	3·
Disease of Heart and Blood Vessels	13·	·6	12·6	·6	11·	·5	10·1	–	15·7	·3
Disease of Stomach and Bowels	36·6	·2	144·3	·7	169·3	·8	194·6	·7	114·1	·3
Disease of Liver, Spleen, &c.	3·9	–	5·6	·2	4·8	–	3·6	–	9·5	·6
Disease of Kidneys, Bladder, and Genital Organs	165·3	·1	65·7	–	87·4	–	80·6	–	99·3	–
Disease of Joints, Muscles, Bones, &c.	62·2	–	98·8	·2	87·7	·1	76·5	–	88·1	–
Disease of Senses, Eyes, Ears, &c.	18·2	–	18·9	–	16·	–	15·2	–	9·9	–
Disease of Skin, Glandular System, and Cellular Tissue	304·1	·1	536·6	·3	438·8	·1	447·8	–	354·5	–
Diseases not specified	43·3	–	91·1	–	57·7	–	82·3	–	72·2	–
Wounds, Accidents, &c.	180·1	1·8	312·1	2·3	303·9	3·1	328·3	9·5	285·2	3·6

(continued)

CLASS OF DISEASE.	West Coast of Africa.		Cape of Good Hope.		East Indies and China.		Australia.		Irregular Force.	
	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.
Continued and Remittent Fever	364·2	4·6	105·1	1·4	121·	2·2	37·9	3·4	44·3	·7
Yellow Fever	–	–	–	–	–	–	–	–	–	–
Intermittent Fever	110·8	–	76·2	–	93·	–	6·8	–	17·3	–
Eruptive Fevers	1·	–	–	–	9·2	2·2	–	–	6·3	·5
Disease of Brain, Nerves, &c.	6·6	–	8·7	–	15·7	1·2	8·5	1·7	14·3	·2
Disease of Respiratory Organs	150·6	3·	233·1	5·8	216·7	2·3	246·	–	283·1	2·
Disease of Heart and Blood Vessels	27·8	1·	11·	–	17·6	–	3·4	1·7	12·7	·2
Disease of Stomach and Bowels	173·2	3·6	202·9	–	377·8	12·	127·5	1·7	102·8	·4
Disease of Liver, Spleen, &c.	5·6	–	–	–	9·6	·3	6·8	–	4·6	–
Disease of Kidneys, Bladder, and Genital Organs	61·9	–	110·2	·7	228·8	·8	51·5	–	206·6	–
Disease of Joints, Muscles, Bones, &c.	117·5	·5	116·9	–	104·1	·1	99·9	–	116·	·5
Disease of Senses, Eyes, Ears, &c.	18·5	–	10·3	–	144·1	–	15·5	–	21·9	–
Disease of Skin, Glandular System, and Cellular Tissue	495·5	–	530·8	1·4	487·2	–	372·1	–	557·	–
Diseases not Specified	124·2	·5	114·6	–	109·2	–	36·2	–	91·1	–
Wounds, Accidents, &c.	344·8	7·6	386·8	4·3	321·6	9·6	218·8	18·8	336·	1·9

Fevers.—Three thousand five hundred and eighteen cases of fever of a continued or remittent type were placed on the sick list during the year. Of these, twenty-nine were invalided, and fifty-six had a fatal termination. The ratio of cases was 65·, of invaliding ·5, and of mortality 1· per 1,000 of mean force, which is a decrease under each head as compared with the preceding year. It will be perceived by the above Table that the ratio of cases and of mortality, under this head, is greater on the West Coast of Africa than on any other station, and that next to it, in point of cases, comes the East Indian and China Station, after which is the Cape of Good Hope. In point of mortality, however, the Australian station comes next to the West Coast of Africa; but this arises from the fact that the force on that station being very small, one or two deaths occurring upon it give a somewhat exaggerated value to the death-rate they occasion, as compared with other stations. On the North American and West Indian station there is a considerable decrease in the ratio of cases as compared with the preceding year, and the decrease in the death-rate is as much as 4·3 per 1,000. On the South-east Coast of America, although the sick-rate under this head exceeded that of 1862 by 10·4 per 1,000, the death-rate was precisely the same as that year; but on the Pacific station, with a lower

Total Force.

a lower ratio of cases, the death-rate was the same as in the previous year. As has been repeatedly observed, however, with reference to this class of fevers, there is no necessary connection whatever between their sick and death-rates, a very large sick-rate frequently accruing from the prevalence of cases of ephemeral fever, which rarely occasions any mortality, while a large ratio of mortality may result from a very few cases of the specific, continued, or malignant remittent fevers. On the Cape of Good Hope Station, the ratio of cases is precisely one-half of that of the previous year, but there is a death-rate of 1·4 per 1,000, while in 1862 there was no mortality under this head.

Yellow fever was almost if not altogether unknown in the force throughout the year. Nominally, there was a sick-rate of 1·7 from this cause, with a death-rate of ·7 per 1000, all occurring on the North American and West Indian Station; but, as remarked elsewhere, it is questionable if any of the cases returned under this head were examples of specific yellow fever; it is more than probable that in every instance the disease was malignant remittent fever. It may be of little importance to the individual whether the disease he is labouring under be malignant remittent fever or specific yellow fever, if the chances of his recovery are about equal; but it is of vast importance to the community by whom he is surrounded, for while the one is so decidedly infectious that wherever it is introduced it almost invariably assumes the epidemic form, the other, *i. e.* the remittent fever, does not partake of this character in the smallest degree.

Ague was more prevalent on the West Coast of Africa than in the previous year; but there is a great reduction under this head, both on the Cape of Good Hope and the East Indian and China stations, which is readily accounted for by difference in the nature of the employment of the squadrons in the two years.

Eruptive Fevers.—There is a very great increase in the total ratio of diseases coming under this head, as compared with the previous year. This arises chiefly from the great prevalence of small-pox and scarlatina on the Home Station, and of the latter disease on the Brazilian Station. The ratio of mortality, however, in the Total Force is precisely the same as in 1862.

Diseases of the Brain and Nervous System.—The death rate from these diseases was the same as in the previous year, viz., ·4. There were thirteen deaths from various forms of disease

disease of the brain, ten from apoplexy, six from epilepsy, five from paralysis, and two from delirium tremens. The ratio of cases under this head is higher this year on the East India and China Station than on any other; but the North American and West Indian, the Brazilian Stations, and the Irregular Force, are not much below it. Total Force.

Diseases of the Organs of Respiration.—There is a reduction in the ratio of cases under this head, and also in the death rate, as compared with the previous year. The stations showing the largest ratio of cases were the Pacific, the Australian, the Mediterranean, and the Cape of Good Hope; but on the majority of these stations a large proportion of the disease was of an exceedingly mild character. In order to show the comparative prevalence of the different forms of disease of the respiratory organs on the various stations during a period of seven years, the following Table is drawn up:—

AVERAGE RATIOS of Cases of Diseases of the Chest per 1,000 of MEAN FORCE, on the different Stations, for a period of Seven Years (1856 to 1862 inclusive).

	HOME.	MEDITERRANEAN.	NORTH AMERICA AND WEST INDIES.	BRAZILS.	PACIFIC.	WEST COAST OF AFRICA.	CAPE OF GOOD HOPE.	EAST INDIES AND CHINA.	AUSTRALIA.	IRREGULAR FORCE.	TOTALS.
Inflammation of Lungs and Pleura	19·5	19·9	14·8	10·3	14·6	12·3	10·5	17·4	12·4	20·2	15 1
Phthisis and Hæmoptysis	6·6	8·0	5·7	4·9	5·9	9·2	4·8	5·7	5·7	8·6	6·5
Influenza and Catarrh -	170·7	155·8	170·3	180·1	199·9	141·6	161·7	159·5	173·7	187·	170·
Cynanche - - -	37·2	39·4	34·6	34·9	24·5	24·9	31·0	18·4	28·2	38·9	31·2
Asthma - - -	·6	·6	·8	·2	3·1	·8	·5	·8	·5	·8	·8
TOTALS - - -	234·6	223·7	226·2	230·4	248·0	188·8	208·5	201·8	220·5	255·5	223·6

It will be perceived by this table, that in inflammatory diseases of the chest the Mediterranean surpasses any other station, and that it is only exceeded by the West Coast of Africa in the prevalence of phthisis and hæmoptysis. This fact has been previously alluded to in the observations on that station. Catarrhal affections appear to be more preva-

Total Force.

lent on the Pacific Station than elsewhere; but in throat affections the Mediterranean again asserts a pre-eminence. The returns from the Irregular Force, which shew a larger ratio of cases of these diseases than those of any of the stations, have little or no value in a statistical point of view.

Diseases of the Heart and Blood Vessels.—The ratios of cases and of invaliding from these diseases were almost exactly the same as in the previous year; but there was a slight reduction in the death rate. Seven hundred and forty cases were placed under treatment, of which 200 were invalided, and twenty-nine had a fatal termination.

Diseases of the Alimentary Canal.—There is a considerable decrease in the total ratio of cases coming under this head, as compared with the preceding year, and the death rate is reduced by more than one-half. The ratio of invaliding, however, is slightly increased. This reduction in the sick and death rates is almost altogether attributable to the different manner in which the squadrons on the Cape of Good Hope and East India and China Stations were employed in the two respective years. In 1862, on both stations, there was a large amount of river service, and on the former station dysentery was introduced into one vessel by a cargo of slaves who were suffering from that disease. In that year the ratio of cases of diseases of the digestive organs was 357·3 per 1,000, and of deaths ·8; while, in the present year, the sick rate was only 202·9, and there were no deaths whatever. On the East India and China Station, in 1862, the sick rate was 567·2, and the death rate 44·9; while in the present year the ratio of cases is 377·8, and the ratio of mortality only 12·. There is a reduction in the ratio of cases of these diseases this year as compared with last, on the Home, North American and West Indian, the Pacific, Cape of Good Hope, East India and China Stations, and in the Irregular Force; and there is an increase on the Mediterranean, South East Coast of America, West Coast of Africa, and the Australian Stations. The death rate is reduced on the Home, North American and West Indian, South East Coast of America, East Indies and China, and the Australian Stations; and it is slightly increased on the Mediterranean, West Coast of Africa, and Cape of Good Hope Stations. On the Pacific Station and on the Irregular Force, the death rate is precisely the same as in the preceding year.

Diseases

Diseases of the Liver and Spleen.—One hundred and fifty-four cases of inflammatory disease of the liver were under treatment, of which thirty-nine were invalided and six terminated fatally. In almost every fatal case the disease ran on to abscess. There were two deaths from jaundice. Total Force.

Diseases of the Genito-Urinary Organs.—It will be perceived by the following Table that, compared with the previous year, there is a decrease in syphilis on the Home, Mediterranean, South East Coast of America, West Coast of Africa, and Australian Stations; while there is an increase on the North American and West Indian, the Pacific, the Cape of Good Hope, East Indies and China Stations, and in the Irregular Force:—

Stations.	Syphilis.		Gonorrhœa.	
	1862.	1863.	1862.	1863.
Home	108·6	104·2	34·8	32·4
Mediterranean	60·5	29·1	17·8	14·9
North America and West Indies	36·3	48·5	7·7	13·6
Brazils	42·2	38·6	13·3	18·9
Pacific	32·6	54·6	10·8	22·6
West Coast of Africa	19·1	18·6	9·1	16·5
Cape of Good Hope	52·5	60·	17·7	27·4
East Indies and China	78·7	132·2	36·9	57·3
Australia	39·1	22·4	17·9	8·6
Irregular Force	121·3	143·2	44·6	31·4

The most marked difference in the two years will be observed to be on the Mediterranean and East Indies and China Stations; for while on the former the disease is reduced by more than one-half, on the latter it is nearly doubled. This is accounted for by the fact, that while on the Mediterranean Station the squadron was for the most part in localities where a strict surveillance of prostitution is maintained, on the East Indies and China Station the fleet was mainly employed in Japan, the sea-ports of which are pre-eminent

Total Force.

pre-eminent both for prostitution and syphilis, in their most unblushing and appalling forms. On the Pacific, most of the disease, as heretofore, was contracted at Valparaiso; but the crew of one vessel suffered a good deal from this cause at Mazatlan, in Mexico. On the South East Coast of America and the Australian Stations, syphilis was not so frequent, but neither of these stations, happily, are much infested with this disease.

Rheumatism.—There is very little difference in the sick, invaliding, or death rates from this disease in the Total Force, as compared with the preceding year; but it will be observed by the following Table, that on particular stations there is a very considerable alteration in the ratios. On the Pacific Station, for example, the sick rate from rheumatism is lower than it had been for any of the previous seven years. On the Cape of Good Hope Station, although there is a reduction in the sick rate from this cause, it maintains, as it did in the previous year, a pre-eminence over all the other stations. Next to it ranks the West Coast of Africa, to which, as was remarked in the Statistical Report of the Health of the Navy for 1862, it has been closely assimilated, as respects the duties of the squadron, within the last two years.

Stations.	Rheumatism.	
	1862.	1863.
Home	65·7	57·5
Mediterranean	104·8	95·6
North America and West Indies	74·9	75·4
Brazils	88·	71·5
Pacific	101·	80·1
West Coast of Africa	86·3	103·1
Cape of Good Hope	121·1	113·3
East Indies and China	79·5	96·8
Australia	64·5	89·6
Irregular Force	96·4	110·4

Diseases

Diseases of the Special Senses.—The prevalence of epidemic ophthalmia in several ships of the squadron in Japan increased the ratio of cases of disease coming under this head to nearly double that of the previous year. Forty men were invalided for various affections of the organs of vision and nineteen for deafness. Total Force.

Diseases of the Skin and Cellular Tissue.—The largest ratios of sickness under this head are contributed by abscesses and ulcers. Of the former, seven proved fatal, chiefly cases of psoas abscess; and of the latter, one. There were two deaths also from erysipelas. No reliable information is obtained of the cause of death in eight instances; the men either died or were killed when away from their ships. There were three deaths from dropsy; eighty from wounds and injuries of various kinds; one from hernia; one hundred and three men were drowned; nine committed suicide; one died from alcoholic poisoning; two were asphyxiated, and one was murdered.

Average Number Sick Daily.—About one hundred and eighteen men were daily sick of continued or remittent fever; thirty-one of ague, and twenty of eruptive fevers, more than one-half of whom laboured under scarlatina. The daily loss of service from diseases of the brain and nervous system was equal about thirty-two men, which (headache being removed to another class in the Table) is almost precisely the same as in the previous year. From diseases of the respiratory organs the loss of service daily was equal to about 333 men, or in the ratio of 5·8 per 1,000 of mean force, which is precisely the same rate as obtained in 1862. From diseases of the organs of circulation the daily ratio of sickness was ·6 per 1,000; from diseases of the alimentary canal, 2·3; from affections of the liver, ·3; from diseases of the genito-urinary organs, 10·5, almost altogether attributable to venereal disease; from rheumatism, 3·7; diseases of the bones and joints, ·4; of the special senses, ·7; of the skin and cellular tissue, 14·1, 11·3 of which were attributable to boils and abscesses and ulcers; from diseases not classed, 1·5; and from wounds and injuries of various kinds, 8·5. The total number of men sick daily was 2937·8, or in the ratio of 54·3 per 1,000 of mean force, which is a reduction of about 3· per 1,000 as compared with the preceding year. The following Table shows the daily sick

Total Force.

sick rate, the ratio of invaliding, and the death rate on the different stations in 1863.

STATIONS.	Ratio per 1,000 of Mean Force Sick Daily.	Number Invalided per 1,000 of Mean Force.	Number Dead per 1,000 of Mean Force.
Home - - - - -	45·8	28·9	7·
Mediterranean - - -	53·3	42·8	9·5
North America and West Indies	45·3	26·3	7·9
Brazils - - - - -	56·7	26·2	14·5
Pacific - - - - -	50·1	32·2	9·6
West Coast of Africa - -	61·8	41·4	22·3
Cape of Good Hope - -	79·	38·5	16·2
East Indies and China - -	77·6	64·	31·8
Australia - - - -	41·3	29·3	27·5
Irregular - - - -	73·1	27·2	7·8

Summary.—The Total Force in 1863 was 54,090, and the total number of men sick daily 2937·8 which is in the ratio of 54·3 per 1,000 of mean force, a reduction of 2·8 per 1,000 as compared with the previous year.

There were 78,664 cases of disease and injury under treatment during the year, being in the ratio of 1454·3 per 1,000, or somewhat under three entries on the sick list to every two men in the force. Each of these cases was thirteen and a half days under treatment, and the total days' sickness being 1,072,301, gave an average of about twenty days' sickness to each man of the force.

The total number invalided was 1,903, or in the ratio of 35·1 per 1,000, which is an increase of 2·1 per 1,000 as compared with the preceding year. The total number of deaths was 619, which is in the ratio of 11·3 per 1,000 of mean force. Of these 205, or in the ratio of 3·7, were occasioned by injuries of various kinds, so that the number of deaths from diseases of all kinds was only 414, or in the ratio of 7·6 per 1,000 of mean force.

TABLE, No. 1.

SHOWING the Number of CASES of all DISEASES and INJURIES, and the Number INVALIDED and DEAD, with the Ratio per 1,000 of Mean Force.

DISEASE OR INJURY.	Number of Cases.	Ratio per 1,000 of Mean Force.	Number Invalided.	Ratio per 1,000 of Mean Force.	Number Dead.	Ratio per 1,000 of Mean Force.
Continued and Remittent Fever	3,518	65·	29	·5	56	1·
Yellow Fever	9	·1	-	-	5	—
Intermittent Fever	1,409	26·	12	·2	—	—
Small Pox	121	2·2	-	-	15	·2
Measles	66	1·2	—	—	—	—
Scarlatina	186	3·4	-	-	9	·1
Varicella	22	·4	—	—	—	—
Disease of the Brain	14	·2	14	·2	13	·2
Apoplexy	39	·7	2	-	10	·1
Epilepsy	196	3·6	87	1·6	6	·1
Paralysis	57	1·	28	·5	5	—
Insanity	48	·8	30	·5	—	—
Delirium Tremens	168	3·1	-	-	2	—
Neuralgia	122	2·2	4	—	—	—
Inflammation of the Lungs and Pleura	913	16·8	50	·9	42	·7
Phthisis and Hæmoptysis	469	8·6	343	6·3	85	1·5
Influenza and Catarrh	7,422	137·2	—	—	—	—
Cynanche	2,442	45·1	5	-	2	—
Asthma	36	·6	6	·1	—	—
Functional and Organic Disease of the Heart	464	8·5	167	3·	27	·4
Hæmorrhoids	208	3·8	4	—	—	—
Varix	66	1·2	26	·4	—	—
Phlebitis	2	—	—	—	—	—
Aneurism	-	-	3	-	2	—
Inflammation of the Stomach and Bowels	80	1·4	13	·2	18	·3
Dysentery	359	6·6	92	1·7	45	·8
Diarrhœa	5,140	95·	8	·1	8	·1
Cholera	53	·9	-	-	26	·4
Constipation and Colic	1,043	19·2	—	—	—	—
Inflammation of the Liver	154	2·8	39	·7	6	·1
Jaundice	124	2·2	-	-	2	—
Splenitis	8	·1	1	—	—	—

TABLE, No. 1.—Showing the Number of Cases of all Diseases, &c.—*continued.*

DISEASE OR INJURY.	Number of Cases.	Ratio per 1,000 of Mean Force.	Number Invalided.	Ratio per 1,000 of Mean Force.	Number Dead.	Ratio per 1,000 of Mean Force.
Inflammation of the Bladder and Kidneys	75	1·3	21	·3	5	—
Syphilis	4,369	80·7	102	1·8	—	—
Gonorrhœa	1,488	27·5	1	—	—	—
Orchitis	1,136	21·	10	·1	—	—
Stricture	214	3·9	28	·5	4	—
Incontinence of Urine, &c.	74	1·3	8	·1	—	—
Rheumatism	4,223	78·	192	3·5	5	—
Gout	67	1·2	2	—	—	—
Disease of the Bones and Joints	247	4·5	36	·6	3	—
Ophthalmia	1,263	23·3	15	·2	—	—
Amaurosis and Cataract	66	1·2	25	·4	—	—
Otitis and Deafness	222	4·1	19	·3	—	—
Erysipelas	169	3·1	8	·1	2	—
Scrofula	55	·9	27	·4	—	—
Bubo (*Symp.*)	876	16·1	3	—	—	—
Phlegmon and Abscess	13,728	253·7	21	·3	7	·1
Ulcer	5,018	92·7	75	1·3	1	—
Psora	1,206	22·2	—	—	—	—
Eruptions, &c.	1,246	23·	10	·1	—	—
Dyspepsia and Debility	3,158	58·3	92	1·7	—	—
Scurvy	26	·4	—	—	—	—
Dropsy	94	1·7	6	·1	3	—
Worms	84	1·5	2	—	—	—
Headache, &c.	424	7·8	20	·3	—	—
Purpura	5	—	—	—	—	—
Cancer	2	- -	2	—	—	—
Wounds and Injuries	13,371	247·1	131	2·4	80	1·4
Burns and Scalds	632	11·7	—	—	—	—
Hernia	153	2·8	84	1·5	1	—
Drowned	- -	- -	- -	- -	103	1·9
Poison	9	·1	—	—	—	—
Suicide	- -	- -	- -	- -	9	·1
Alcoholic Poisoning	2	- -	- -	- -	1	—
Asphyxia	4	- -	- -	- -	2	—
Murdered	- -	- -	- -	- -	1	—
Not stated	- -	- -	- -	- -	8	·1
TOTAL	78,664	1454·3	1,903	35·1	619	11·4

Table, No. 2.

Showing the Mean Force; the Number of Cases; the Number of Days' Sickness; with the Ratios on the different Stations.

STATION.	Mean Force.	Number of Cases of Disease and Injury.	Number of Cases per Man.	Number of Days' Sickness on Board.	Average Number of Men Sick Daily.	Ratio per 1,000 of Mean Force.	Number discharged to Hospital.	Ratio per 1,000 of Mean Force.	Number of Days' Sickness in Hospital.	Average Number of Men Daily in Hospital.	Ratio per 1,000 of Mean Force.	Total Number of Days' Sickness.	Average Number of Men Sick Daily.	Ratio per 1,000 of Mean Force.
Home - - -	21,570	22,788	1·	225,279	617·2	28·4	3,053	141·	135,828	372·1	17·2	361,107	989·3	45·8
Mediterranean -	8,470	13,844	1·6	139,028	380·8	44·8	477	56·3	26,409	72·3	8·5	165,437	453·1	53·3
North America and West Indies -	7,050	10,668	1·5	102,825	281·7	39·9	474	67·2	13,981	38·3	5·4	116,806	320·	45·3
South East Coast of America - -	1,370	2,096	1·4	26,235	71·8	52·4	54	39·4	2,210	6·	4·3	28,445	77·8	56·7
Pacific - - -	3,220	4,516	1·4	53,712	147·1	45·6	110	34·1	5,364	14·6	4·5	59,076	161·7	50·1
West Coast of Africa	1,930	3,830	1·9	36,994	101·3	52·4	139	72·	6,647	18·2	9·4	43,641	119·5	61·8
Cape of Good Hope -	1,350	2,576	1·9	27,038	74·	54·8	109	80·	11,918	32·6	24·1	38,956	106·7	79·
East Indies and China	*4,740	10,706	2·2	128,072	350·8	66·9	285	60·1	20,300	55·7	10·6	148,372	406·4	77·6
Australia - - -	580	715	1·2	7,859	21·5	37·	21	36·1	904	2·5	4·3	8,763	24·	41·3
Irregular - -	3,810	6,925	1·8	74,560	204·2	53·5	421	110·7	27,138	74·3	19·5	101,698	278·5	73·1
Total - - -	54,090	78,664	1·4	821,602	2250·9	41·6	5,143	95·	250,699	686·8	12·6	1,072,301	2937·8	54·3

* With Gunboats, 5,240.

Table, No. 3.

Showing the Number of Men Invalided and Dead from Disease and Injury on the different Stations, with the Ratios per 1,000 of Mean Force.

STATION.	Number of Men Invalided for Disease.	Ratio per 1,000 of Mean Force.	Number of Men Invalided for Injury.	Ratio per 1,000 of Mean Force.	Total Number Invalided.	Ratio per 1,000 of Mean Force.	Number of Deaths from Disease.	Ratio per 1,000 of Mean Force.	Number of Deaths from Injury.	Ratio per 1,000 of Mean Force.	Total Number of Deaths.	Ratio per 1,000 of Mean Force.
Home	555	25·7	70	3·2	625	28·9	107	4·9	46	2·1	153	7·
Mediterranean	217	37·8	46	5·	363	42·8	61	7·2	20	2·3	81	9·5
North America and West Indies	161	22·8	25	3·5	186	26·3	34	4·8	22	3·1	56	7·9
South East Coast of America	30	21·4	6	4·8	36	26·2	7	5·	13	9·5	20	14·5
Pacific	93	28·8	11	3·4	104	32·2	19	5·9	12	3·7	31	9·6
West Coast of Africa	72	37·3	8	4·1	80	41·4	28	14·6	15	7·7	43	22·3
Cape of Good Hope	47	34·8	5	3·7	52	38·5	15	11·1	7	5·1	22	16·2
East Indies and China	304	57·3	32	6·7	336	64·	116	21·2	51	10·6	167	31·8
Australia	14	24·2	3	5·1	17	29·3	5	8·6	11	18·9	16	27·5
Irregular	95	24·9	9	2·3	104	27·2	22	5·7	8	2·1	30	7·8
Total	1,688	31·2	215	3·9	1,903	35·1	414	7·6	205	3·7	619	11·3

TABLE, No. 4.

SHOWING the Number of DAYS' SICKNESS from each DISEASE and from INJURIES, the Average Number of Men Sick Daily, with the Ratio per 1,000 of Mean Force.

DISEASE OR INJURY.	Number of Days' Sickness on Board.	Number of Days' Sickness in Hospital.	Total Number of Days' Sickness.	Average Number of Men Sick Daily.	Ratio per 1,000 of Mean Force.
Continued and Remittent Fever	33,873	9,445	43,318	118·6	2·1
Yellow Fever	162	-	162	·4	—
Intermittent Fever	10,219	1,364	11,583	31·7	·5
Small-pox	1,183	951	2,134	5·8	·1
Measles	357	441	798	2·1	—
Scarlatina	1,135	3,319	4,454	12·1	·2
Disease of the Brain	177	720	897	2·4	—
Apoplexy	402	280	682	1·8	—
Epilepsy	2,265	971	3,236	8·8	·1
Paralysis	966	1,576	2,542	6·9	·1
Insanity	362	1,270	1,632	4·4	—
Delirium Tremens	1,046	784	1,830	5·	—
Neuralgia	850	179	1,029	2·8	—
Inflammation of the Lungs and Pleura	12,983	12,588	25,571	70·	1·2
Phthisis and Hæmoptysis	11,177	18,221	29,398	80·5	1·4
Influenza and Catarrh	44,929	1,884	46,813	128·2	2·3
Cynanche	15,393	4,207	19,600	53·6	·9
Asthma	425	140	565	1·5	—
Functional and Organic Disease of the Heart	8,289	3,262	11,551	31·6	·5
Hæmorrhoids	2,015	1,017	3,032	8·3	·1
Varix	1,183	606	1,789	4·9	—
Phlebitis	35	18	53	·1	—
Inflammation of the Stomach and Bowels	881	979	1,860	4·3	—
Dysentery	8,115	4,879	12,994	35·6	·6
Diarrhœa	28,981	2,117	31,098	85·1	1·5
Cholera	635	125	760	2·	—
Constipation and Colic	4,726	381	5,107	14·	·2
Inflammation of the Liver	3,043	1,824	4,867	3·3	·2
Jaundice	1,507	668	2,175	5·9	·1
Splenitis	198	148	346	·9	—

TABLE, No. 4.—Showing the Number of Days' Sickness from each Disease, &c.—*continued.*

DISEASE OR INJURY.	Number of Days' Sickness on Board.	Number of Days' Sickness in Hospital.	Total Number of Days' Sickness.	Average Number of Men Daily Sick.	Ratio per 1,000 of Mean Force.
Inflammation of the Bladder and Kidneys	962	1,361	2,323	6·3	·1
Syphilis	88,757	66,801	155,558	426·1	7·8
Gonorrhœa	22,807	3,287	26,094	71·4	1·3
Orchitis	16,117	4,757	20,874	57·1	1·
Stricture	3,143	3,430	6,573	18·	·3
Incontinence of Urine, &c.	624	597	1,221	3·3	—
Rheumatism	49,350	25,076	74,426	203·9	3·7
Gout	879	158	1,037	2·8	—
Disease of the Bones and Joints	4,630	3,392	8,022	21·9	·4
Ophthalmia	9,743	2,671	12,414	34·	·6
Amaurosis and Cataract	991	503	1,494	4·	—
Otitis and Deafness	1,754	956	2,710	7·4	·1
Erysipelas	2,194	1,528	3,722	10·1	·1
Scrofula	1,211	1,567	2,778	7·6	·1
Bubo (*Symp.*)	20,081	2,241	22,322	61·1	1·1
Phlegmon and Abscess	104,381	8,917	123,298	337·8	6·2
Ulcer	86,414	16,012	102,426	280·6	5·1
Psora	10,321	153	10,474	28·6	·5
Eruptions, &c.	16,323	4,020	20,343	55·7	1·
Dyspepsia and Debility	18,127	7,017	25,144	68·8	1·2
Scurvy	171	28	199	·5	—
Dropsy	1,368	665	2,033	5·5	·1
Worms	691	111	802	2·1	—
Headache, &c.	2,635	1,577	4,212	11·5	·2
Cancer	74	77	151	·4	—
Purpura	24	-	24	—	—
Wounds and Injuries	140,674	17,971	158,645	434·6	8·
Burns and Scalds	7,656	561	8,217	22·5	·4
Hernia	2,152	548	2,700	7·3	·1
Poison	54	-	54	·1	—
Gangrene	-	53	53	·1	—
Asphyxia	2	-	2	—	—
Colica Pictonum	80	-	80	·2	—
TOTAL	821,602	250,699	1,072,301	2937·8	54·3

TABLE, No. 5.

SHOWING the Number INVALIDED on the several STATIONS.

CAUSE of INVALIDING.	Home.	Mediterranean.	North America and West Indies.	South East Coast of America.	Pacific.	West Coast of Africa.	Cape of Good Hope.	East Indies and China.	Australia.	Irregular.	TOTAL.
Continued and Remittent Fever	2	5	7	1	–	11	–	1	–	2	29
Intermittent Fever	1	–	1	–	–	2	1	6	–	1	12
Disease of the Brain	7	4	–	–	1	1	–	–	–	1	14
Apoplexy	1	1	–	–	–	–	–	–	–	–	2
Epilepsy	43	17	2	–	2	6	2	9	–	6	87
Paralysis	12	5	1	–	1	1	1	5	1	1	28
Insanity	2	11	4	–	2	1	–	8	–	2	30
Cynanche	5	–	–	–	–	–	–	–	–	–	5
Neuralgia, &c.	–	–	2	1	1	–	–	–	–	–	4
Inflammation of the Lungs and Pleura	22	3	6	1	8	–	3	3	1	3	50
Phthisis	117	88	42	6	12	7	3	39	5	24	343
Asthma, &c.	1	1	–	–	–	2	–	2	–	–	6
Functional and Organic Disease of the Heart	71	32	14	2	10	5	5	21	1	6	167
Hæmorrhoids	–	–	1	–	1	2	–	–	–	–	4
Varix	11	7	2	–	3	–	–	3	–	–	26
Inflammation of the Stomach and Bowels	5	2	1	–	3	–	1	1	–	–	13
Dysentery	4	–	2	–	–	3	4	76	1	2	92
Diarrhœa	3	1	–	–	–	–	–	4	–	–	8
Inflammation of the Liver	5	6	5	1	7	–	–	14	1	–	39
Splenitis	–	–	–	–	–	–	–	–	–	1	1
Inflammation of the Bladder and Kidneys	3	6	6	1	–	–	1	3	–	1	21
Syphilis	22	14	12	1	14	1	4	29	1	4	102
Stricture	5	1	8	1	1	3	3	4	–	2	28
Gonorrhœa	–	–	1	–	–	–	–	–	–	–	1
Orchitis	2	1	–	1	–	2	1	3	–	–	10
Incontinence of Urine, &c.	8	–	–	–	–	–	–	–	–	–	8
Rheumatism	71	37	11	7	9	6	7	27	1	16	192
Gout	–	–	1	–	–	–	–	1	–	–	2
Disease of the Bones, &c.	14	7	3	–	1	2	–	6	1	2	36
Ophthalmia	8	2	–	–	2	–	–	1	–	2	15
Amaurosis and Cataract	10	5	1	1	–	4	–	2	–	2	25
Otitis and Deafness	7	6	–	1	2	1	–	–	–	2	19
Erysipelas	2	6	–	–	–	–	–	–	–	–	8
Abscess	7	3	2	–	2	2	–	5	–	–	21
Ulcer	23	15	6	2	4	2	1	16	–	6	75
Scrofula	12	4	3	–	3	–	–	4	–	1	27
Bubo (*Symp.*)	–	2	–	1	–	–	–	–	–	–	3
Cancer	–	–	1	–	1	–	–	–	–	–	2
Eruptions, &c.	5	1	1	–	–	–	1	–	1	1	10
Dyspepsia and Debility	31	19	9	1	3	8	8	6	–	7	92
Dropsy	2	1	1	–	–	–	–	2	–	–	6
Worms	1	–	–	1	–	–	–	–	–	–	2
Aneurism	–	1	–	–	–	–	–	2	–	–	3
Wounds and Injuries	37	26	25	3	8	5	3	17	2	5	131
Headache, &c.	10	3	5	–	–	–	1	1	–	–	20
Hernia	33	20	–	3	3	3	2	15	1	4	84
TOTAL	625	363	186	36	104	80	52	336	17	104	1,903

TABLE, No. 6.

SHOWING the Number of DEATHS on the several STATIONS.

CAUSE of DEATH.	Home.	Mediterranean.	North America and West Indies.	South East Coast of America.	Pacific.	West Coast of Africa.	Cape of Good Hope.	East Indies and China.	Australia.	Irregular.	TOTAL.	Ratio per Cent. of Deaths from Disease.	Ratio per Cent. of Deaths from Injury.	Ratio per Cent. of Deaths from all Causes.
Continued and Remittent Fever	8	12	4	2	2	9	2	12	2	3	56	13·5	–	9·
Yellow Fever	–	–	5	–	–	–	–	–	–	–	5	1·2	–	·8
Small-pox	2	–	–	1	–	2	–	10	–	–	15	3·6	–	2·4
Scarlatina	3	2	–	–	–	–	–	2	–	2	9	2·1	–	1·4
Disease of the Brain	4	2	–	–	1	–	–	6	–	–	13	3·1	–	2·1
Apoplexy	6	2	1	–	1	–	–	–	–	–	10	2·4	–	1·6
Epilepsy	4	–	–	–	–	–	–	–	1	1	6	1·4	–	·9
Paralysis	–	1	1	1	1	–	–	1	–	–	5	1·2	–	·8
Delirium Tremens	–	1	1	–	–	–	–	–	–	–	2	·4	–	·3
Inflammation of the Lungs and Pleura	16	6	1	–	4	3	4	2	–	6	42	10·1	–	6·7
Phthisis and Hæmoptysis	32	15	8	2	6	3	4	10	–	5	85	20·5	–	13·7
Cynanche	–	–	1	–	–	–	–	1	–	–	2	·4	–	·3
Disease of the Heart	13	5	4	–	1	2	–	–	1	1	27	6·5	–	4·3
Aneurism	1	1	–	–	–	–	–	–	–	–	2	·4	–	·3
Inflammation of the Stomach and Bowels	4	5	3	–	–	–	–	5	–	1	18	4·3	–	2·9
Cholera	–	–	–	–	–	–	–	26	–	–	26	6·2	–	4·2
Dysentery	–	2	3	1	1	7	2	27	1	1	45	10·8	–	7·2
Diarrhœa	2	–	–	–	–	–	–	6	–	–	8	1·9	–	1·2
Inflammation of the Liver	–	2	–	–	2	–	–	2	–	–	6	1·4	–	·9
Jaundice	2	–	–	–	–	–	–	–	–	–	2	·4	–	·3
Inflammation of the Bladder and Kidneys	–	–	–	–	–	–	1	4	–	–	5	1·2	–	·8
Stricture of the Urethra	3	–	–	–	–	–	–	1	–	–	4	·9	–	·6
Rheumatism	–	1	1	–	–	–	–	1	–	2	5	1·2	–	·8
Disease of the Bones and Joints	1	1	–	–	–	1	–	–	–	–	3	·7	–	·4
Erysipelas	2	–	–	–	–	–	–	–	–	–	2	·4	–	·3
Abscess	1	3	1	–	–	–	2	–	–	–	7	1·6	–	1·1
Ulcer	1	–	–	–	–	–	–	–	–	–	1	·2	–	·1
Dropsy	2	–	–	–	–	1	–	–	–	–	3	·7	–	·4
Wounds and Injuries	16	12	10	–	4	3	4	20	7	4	80	–	39·	1·2
Drowned	20	8	12	12	6	10	2	26	4	3	103	–	50·2	16·6
Suicide	4	–	–	–	1	1	–	2	–	1	9	–	4·3	1·4
Asphyxia	1	–	–	1	–	–	–	–	–	–	2	–	·9	·3
Alcoholic Poison	–	–	–	–	–	–	1	–	–	–	1	–	·4	·1
Hernia	1	–	–	–	–	–	–	–	–	–	1	–	·4	·1
Murdered	–	–	–	–	–	1	–	–	–	–	1	–	·4	·1
Not stated	4	–	–	–	1	–	–	3	–	–	8	–	3·9	1·2
TOTAL	153	81	56	20	31	43	22	167	16	30	619	–	–	–

INDEX

TO SHIPS AND STATIONS,

WITH

LIST OF MEDICAL OFFICERS.

1863.

N.B.—Where the names of two or more Surgeons appear to one Ship, it is to be understood that these officers were serving in the vessel during different periods of the year; or, in some instances, that a Surgeon was borne in lieu of an Assistant Surgeon.

SHIPS.	STATIONS.	RANK.	NAMES OF MEDICAL OFFICERS.
Aboukir	West Indies	Surgeon	C. D. Shephard.
		Assistant Surgeons	C. H. Rason; F. H. Browne; D. Donovan, M.D.
Acorn	East Indies	Assistant Surgeon in charge.	G. W. J. Sutherland.
Active	Home	Surgeons	J. Ward (a.); G. V. Macdonogh, M.D.
Adventure	Irregular	Surgeon	S. Clift.
		Assistant Surgeon	H. H. J. Sterling.
Ajax	Home	Surgeon	H. Piers.
		Assistant Surgeon	P. M. Roe.
Alacrity	Mediterranean	Surgeon	P. W. Govett.
Alecto	Irregular Brazils	Surgeons	W. Edney; W. H. Cruice.
Alert	Home	Surgeon	F. W. Davis.
		Assistant Surgeon	J. Shields.
Algerine	East Indies	Assistant Surgeon in charge.	J. L. Whitney.
Antelope	West Coast of Africa	Assistant Surgeon in charge.	A. B. Johnson.
Archer	Irregular West Coast of Africa	Surgeon	O. J. Llewellyn.
		Assistant Surgeon	T. W. Hughes.
Ardent	Brazils	Surgeon	G. B. Moore.
Argus	East Indies	Surgeon	T. B. Purchas.
		Assistant Surgeon	S. M'Bean.
Ariadne	West Indies	Surgeon	J. C. Ingles.
		Assistant Surgeon	G. W. L. Harrison.
Ariel	Cape of Good Hope	Surgeons	A. H. Woodifield, M.D. (acting); R. Borrows, M.D.

SHIPS.	STATIONS.	RANK.	NAMES OF MEDICAL OFFICERS.
Asia	Home	Surgeon Assistant Surgeons	S. W. Webb. J. W. S. Meiklejohn, M.D.; W. Anderson.
Aurora	Irregular	Surgeon Assistant Surgeon	T. W. Jewell. A. M'Donald, M.D.
Bacchante	Pacific	Surgeons Assistant Surgeon	A. Brown, M.D.; H. Rickard (acting); C. Sproull. W. Redmond.
Barracouta	West Indies	Surgeon Assistant Surgeon	G. B. Newton. S. Bamfield.
Barrosa	East Indies	Surgeon Assistant Surgeon	J. Christie, M.D. R. L. B. Head.
Beagle	East Indies	Assistant Surgeon in charge.	T. Coghlan, M.D.
Beaver (Hired Surveying Vessel.)	Pacific	Assistant Surgeon in charge.	E. B. Bogg, M.D. ("Devastation.")
Black Prince	Home	Surgeon Assistant Surgeons	L. C. Urquhart, M.D. E. P. Forrest; J. W. Jones.
Blenheim	Home	Surgeon Assistant Surgeon	J. Bernard. R. Purves.
Bloodhound	West Coast of Africa	Assistant Surgeons in charge.	W. J. Eames; A. Scott.
Boscawen	Home	Surgeons	H. Richardson, M.D.; J. Henderson, M.D.
Brilliant	Home	Surgeon	J. Ternan, M.D.
Brisk	West Coast of Africa	Surgeon Assistant Surgeon	T. J. Haran. J. T. Moore.
Britannia	Home	Surgeons Assistant Surgeon	W. M. Saunders, M.D.; J. T. U. Bremner, M.D. (for cadets). T. A. O'Flaherty, M.D.
Buzzard	Irregular West Indies	Surgeon Assistant Surgeon	J. Rorie. E. Low, M.D.
Cadmus	West Indies	Surgeon Assistant Surgeon	W. H. Adam. S. Grose.
Cambridge	Home	Surgeon Assistant Surgeons	T. Seccombe. W. H. Clarke; C. L. Cunningham; C. F. Williams; R. F. Bridgford.
Camcleon	Pacific	Surgeon Assistant Surgeons	A. Fisher, M.D. E. Fenn; A. Turnbull, M.D.

SHIPS.	STATIONS.	RANK.	NAMES OF MEDICAL OFFICERS.
Canopus -	Home - - -	Surgeon - -	W. W. Baynes.
		Assistant Surgeon	T. Kipling.
Cape Coast Castle Naval Garrison.	West Coast of Africa	Surgeon - -	G. F. A. Drew ("Rattlesnake.")
Caradoc - -	Irregular - -	Assistant Surgeon in charge.	P. Mansfield, M.D.
	Mediterranean -		
Castor - -	Home - - -	Surgeons - -	W. R. Dalton; P. Digan, M.D.
Centaur - -	East Indies - -	Surgeon - -	H. Arnot, M.D.
		Assistant Surgeon	J. M'Innes, M.D.
Challenger -	West Indies - -	Surgeon - -	W. N. Brake.
		Assistant Surgeon -	W. J. Thomason.
Chanticleer -	Mediterranean -	Surgeon - -	M. P. S. Ward.
		Assistant Surgeon	R. W. Brigstocke.
Charybdis -	Pacific - - -	Surgeons - -	C. K. Ord, M.D.; T. A. Roe, M.D. (acting); W. S. Roche.
		Assistant Surgeon	H. Rickard.
Clio - -	Pacific - - -	Surgeon - -	F. W. Blake, M.D.
		Assistant Surgeon	H. A. Close.
Cockatrice -	Mediterranean -	Assistant Surgeon in charge.	M. O. Hurlstone.
Colossus - -	Home - - -	Surgeons - -	J. A. Miller; A. J. Little.
		Assistant Surgeon	C. J. Devonshire, M.D.
Columbine -	Home - - -	Surgeon - -	J. Hudson.
		Assistant Surgeon	T. Browne, M.D.
Conqueror -	Irregular - -	Surgeon - -	D. Saunders.
		Assistant Surgeons	H. Hadlow; J. T. Comerford.
Coquette -	East Indies - -	Surgeons - -	W. G. Hill; F. F. Morgan.
Cormorant -	East Indies - -	Surgeon - -	R. Eustace.
Cornwallis -	Home - - -	Surgeon - -	T. Somerville.
		Assistant Surgeon	G. Jackson.
Coromandel -	East Indies - -	Assistant Surgeon in charge.	F. V. Dickins.
Cossack - -	Irregular - -	Surgeon - -	W. J. Baird, M.D.
	Mediterranean -	Assistant Surgeon	W. H. Bell.
Cumberland -	Home - - -	Surgeon - -	W. Loney.
		Assistant Surgeons	C. G. Symons; B. Browning; W. G. Ridings; F. L. W. Wright; J. A. Yule; J. M. Hollingsworth; H. N. M. Sedgwick.
Curaçoa - -	Irregular - -	Surgeons - -	R. Picken; H. Slade ("Miranda," *pro. tem*).
	Australia - -	Assistant Surgeon	A. B. Messer.

SHIPS.	STATIONS.	RANK.	NAMES OF MEDICAL OFFICERS.
Curlew	Brazils	Surgeon	J. Coogan.
Cygnet	West Indies	Assistant Surgeon in charge.	G. Duncan.
Dædalus	Home	Surgeon	W. B. Fegen.
Dart	West Coast of Africa	Assistant Surgeon in charge.	D. B. Thomas.
Dasher	Home	Assistant Surgeon in charge.	W. P. J. Purcell, M.D.
Dauntless	Home	Surgeons	G. D. MacLaren; E. Heath, M.D.
		Assistant Surgeons	J. R. Anderson; S. Grose.
Dee	Home	Surgeon	G. P. Cooke.
		Assistant Surgeon in charge.	A. S. Pratt.
Defence	Home	Surgeon	C. F. A Courteney.
		Assistant Surgeon	J. Paterson, M.D.
Desperate	West Indies	Surgeon	D. Saunders.
		Assistant Surgeon	W. Johnston, M.D.
Devastation	Pacific	Surgeons	C. Sproull; B. Gregory (acting).
		Assistant Surgeon	E. B. Bogg, M.D.
Doterel	Brazils	Assistant Surgeon in charge.	N. T. Connolly.
Dromedary	Irregular	Assistant Surgeons in charge.	J. W. Dobbin; J. Buckley.
Duke of Wellington.	Home	Surgeon	H. Gimlette, M.D.
		Assistant Surgeons	T. E. Gorges; A. J. Ireland, M.D.
Eagle	Home	Surgeon	J. Nihill, M.D.
Eclipse	Australia	Surgeon	S. A. Willis, M.D.
Edgar	Mediterranean	Surgeon	W. H. Sloggett.
	Home	Assistant Surgeons	P. Comrie; J. Mockridge.
Edinburgh	Home	Surgeons	J. Bower, M.D; A. Graham, M.D.
		Assistant Surgeon	F. A. Brice, M.D.
Egmont	Irregular	Surgeon	G. J. Willes, M.D.
	Brazils	Assistant Surgeon	R. B. O'Toole.
Emerald	Home	Surgeon	J. Cockin.
		Assistant Surgeons	D. M'Carthy; J. A. Allan, M.D.
Encounter	East Indies	Surgeon	A. Irwin.
		Assistant Surgeon	A. Hogg.
Esk	Irregular	Surgeon	W. B. C. Christy, M.D.
	Australia	Assistant Surgeon	F. N. Manning, M.D.
Espoir	West Coast of Africa	Assistant Surgeon in charge.	C H. Slaughter.

SHIPS.	STATIONS.	RANK.	NAMES OF MEDICAL OFFICERS.
Euryalus	East Indies	Surgeon Assistant Surgeons	D. L. Morgan. C. R. Godfrey; E. A. Birch; J. F. Fitz-Gerald.
Excellent	Home	Surgeon Assistant Surgeons	J. Thomson (c.) J. Farelly; J. P. Courtenay.
Falcon	Irregular	Surgeon Assistant Surgeon	P. W. Rolston. J. Waugh.
Fawn	Irregular	Surgeon Assistant Surgeon	W. Fasken, M.D. M. Coates.
Ferret	Home	Assistant Surgeon in charge.	R. Hague, M.D.
Firebrand	Mediterranean	Surgeon Assistant Surgeon	J. Long, M.D. W. D. Longfield.
Firefly	Mediterranean	Surgeon	J. Flanagan.
Fisgard	Home	Surgeon Assistant Surgeons	M. T. West. R. Humphrys; T. L. Bickford.
Formidable	Home	Surgeon Assistant Surgeon	J. H. Carruthers. R. H. Carroll.
Forte	Brazils	Surgeon Assistant Surgeons	J. I. Crawford. R. J. M'Morris; J. F. FitzGerald; S. Sweetnam.
Fox	Home	Assistant Surgeons in charge.	P. W. Rolston; J. J. Ellis.
Foxhound	Mediterranean	Surgeon	J. Johnstone.
Galatea	West Indies	Surgeon Assistant Surgeons	J. B. Ricards. A. Collins; T. T. Riordan.
Geyser	Home	Surgeon Assistant Surgeons	C. A. Ducket, M.D. T. Cann, M.D.; A. W. Whitley.
Gibraltar	Irregular	Surgeon Assistant Surgeons	C. McShane. E. Waller; W. Reid.
Gorgon	Cape of Good Hope	Assistant Surgeon in charge.	C. P. Mulvany.
Greyhound	West Indies	Surgeon Assistant Surgeon	D. M. Shaw. M. J. Rahilly, M.D.
Griffon	West Coast of Africa	Assistant Surgeon in charge.	F. F. Flynn.
Handy	West Coast of Africa	Surgeon Assistant Surgeon	H. Eales. F. A. Curran.

SHIPS.	STATIONS.	RANK.	NAMES OF MEDICAL OFFICERS.
Hannibal -	Home - - -	Surgeon - -	H. Gimlette, M.D.
		Assistant Surgeon	T. E. Gorges.
Harrier - -	Australia - -	Surgeon - -	W. G. J. Ayre.
		Assistant Surgeon	D. Hilston, M.D.
Hastings -	Home - - -	Surgeon - -	J. G. Risk.
Hawke - -	Home - - -	Surgeons - -	D. Thomas; A. W. W. Babington.
		Assistant Surgeon	R. C. M'Clement.
Hecate - -	Pacific - - -	Surgeon - -	C. B. Wood.
		Assistant Surgeon	S. Campbell.
Hesper - -	East Indies - -	Assistant Surgeon in charge.	F. C. Magrath.
Hibernia -	Mediterranean - -	Surgeon - -	T. R. Pickthorn.
		Assistant Surgeon	J. Jefferson, M.D.
Himalaya -	Irregular - -	Surgeon - -	W. T. Wilson.
		Assistant Surgeon	H. B. Wynter.
Hogue - -	Home - - -	Surgeon - -	J. Walsh.
		Assistant Surgeon	A. M'Kenna.
Hornet - -	East Indies - -	Surgeon - -	W. H. Baxter.
		Assistant Surgeon	G. H. Maunsell.
Hydra - -	Irregular - -	Assistant Surgeon in charge.	W. D. Wodsworth.
		Surgeon - -	J. W. Dick.
Icarus - -	Mediterranean - -	Surgeon - -	J. D. Macdonald.
		Assistant Surgeon	J. Donovan.
Immortalité -	West Indies - -	Surgeons - -	W. L. Gordon, M.D.; W. Richardson.
		Assistant Surgeons	W. Carmichael, M.D.; G. Monteath, M.D.
Impérieuse -	Irregular - -	Surgeon - -	J. Henderson, M.D.
		Assistant Surgeons	E. B. Broster; J. Ligertwood, M.D.; T. Jameson, M.D.
Implacable -	Home - - -	Surgeons - -	J. J. Martin; F. Negus.
Impregnable -	Home - - -	Surgeons - -	J. Thomson; A. Murray.
		Assistant Surgeons	G. M. Egles; W. Johnson, M.D.
Indus - -	Home - - -	Surgeon - -	J. King.
		Assistant Surgeons	C. Morton; T. Fulton, M.D.; J. T. Moore,
Industry - -	Irregular - -	Assistant Surgeon in charge.	W. Yarde, M.D.
Insolent - -	East Indies - -	Assistant Surgeon in charge.	G. Clark.

SHIPS.	STATIONS.	RANK.	NAMES OF MEDICAL OFFICERS.
Investigator -	West Coast of Africa	Assistant Surgeon in charge.	J. G. Cruickshank.
Isis - -	West Coast of Africa	Assistant Surgeon in charge.	E. Meade.
Jackal - -	Home - - -	Assistant Surgeons in charge.	R. Atkinson; J. Ligertwood.
Jaseur - -	Irregular - - West Coast of Africa	Assistant Surgeon in charge.	T. D. Allison, M.D.
Jason - -	West Indies - -	Surgeon - -	R. W. Beaumont.
		Assistant Surgeon	C. C. Mitchinson.
Kite - -	Irregular - -	Assistant Surgeon in charge.	E. J. Sharood, M.D.
Landrail -	West Indies - -	Assistant Surgeon in charge.	J. S. Dobbyn.
Leander - -	Irregular - - Pacific - - -	Surgeons - -	G. Gordon; T. S. Burnett (acting); C. Crandell.
		Assistant Surgeons	E. Mulcahy; W. L. McDermott.
Lee - -	West Coast of Africa	Assistant Surgeon in charge.	A. G. Colquhoun.
Leopard - -	Irregular - - East Indies - -	Surgeon - -	J. Lilburne.
		Assistant Surgeon	G. R. Laurenson.
Leven - -	East Indies - -	Assistant Surgeons in charge.	G. V. Hart; A. Murphy.
Liffey - -	Mediterranean -	Surgeon - -	R. Hastings, M.D.
		Assistant Surgeons	W. F. C. Bartlett; H. F. Nathan; J. W. Arnott.
Lily - -	West Indies - -	Surgeon - -	F. L. Leonard.
Liverpool -	Home - - -	Surgeon - -	H. M. Speer.
		Assistant Surgeons	J. Trimble: F. P. Hains.
Lizard - -	Home - - -	Assistant Surgeons in charge.	A. J. Ireland, M.D.; J. W. Hunter.
London - -	Irregular - -	Surgeon - -	T. Stratton, M.D.
		Assistant Surgeons	T. Fulton, M.D.; G. E. Farr.
Madagascar -	Brazils - - -	Surgeon - -	S. Sweetnam (acting).
		Assistant Surgeon	G. Bolster.
Mæander -	West Coast of Africa	Surgeons - -	D. Finucane; F. H. Rose (acting); J. W. Dobbin (acting); H. H. Smith.
		Assistant Surgeon	J. Buckley.

SHIPS.	STATIONS.	RANK.	NAMES OF MEDICAL OFFICERS.
Magicienne -	Mediterranean -	Surgeon - -	J. G. T. Forbes.
		Assistant Surgeon	C. A Lees, M.D.
Majestic -	Home - - -	Surgeon - -	J. Stewart, M.D.
		Assistant Surgeon	F. H. Richardson, M.D.
Malacca - -	Mediterranean -	Surgeon - -	W. Telfer.
		Assistant Surgeon	E. Dann, M.D.
Manilla - -	East Indies - -	Assistant Surgeon in charge.	W. Inman, M.D.
Marine Detachment on passage to Falkland Islands.	Irregular - -	Surgeon - -	W. F. Mac Clinton.
Marine Battalion on passage to Japan.	Irregular -	Surgeon - -	C. K. Ord, M.D.
		Assistant Surgeons	A. Robertson; G. W. Egles.
Marine Detachment at San Juan.	Pacific - - -	Assistant Surgeon in charge.	A. M'Bride.
Marlborough -	Mediterranean -	Surgeons - -	A. E. Mackay, M.D.; W. Duirs, M.D.
		Assistant Surgeons	H. N. MacLaurin, M.D.; J. A. Middleton, M.D.; G. R. Pickthorn, M.D.; J. Fraser; W. D. Wodsworth.
Mars - -	Irregular -	Surgeons - -	J. Harvey; J. Caldwell.
		Assistant Surgeon	A. B. Messer, M.D.
Medea - -	West Indies -	Surgeon - -	J. McWallace.
		Assistant Surgeon	J. Brown.
Medina - -	Mediterranean - -	Surgeons - -	R. Willcox; J. N. Dick.
Medusa - -	Home - - -	Assistant Surgeon in charge.	G. V. Hart.
Meeanee -	Mediterranean -	Surgeons - -	J. Davidson, M.D.; W. Ross, M.D.
		Assistant Surgeons	G. B. Beale, M.D.; A. Robertson, M.D.
Megæra - -	Irregular -	Surgeon - -	F. H. Blaxall, M.D.
		Assistant Surgeon	J. Lambert.
Melpomene -	West Indies -	Surgeon - -	W. Ross, M.D.
		Assistant Surgeon	J. Trimble.
Miranda - -	Australia -	Surgeon - -	H. Slade.
		Assistant Surgeon	R. Harding.

SHIPS.	STATIONS.	RANK.	NAMES OF MEDICAL OFFICERS.
Mullet	West Coast of Africa	Assistant Surgeons in charge.	A. Scott; J. Parker; D. MacIver, M.D.
Mutine	Pacific	Surgeon Assistant Surgeon	W. H. Cameron. E. J. Butler.
Naiad	Pacific	Assistant Surgeon in charge.	L. Lucas.
Narcissus	Cape of Good Hope	Surgeon Assistant Surgeons	J. Cotton, M.D. J. S. Levis; W. H. Sissons.
Naval Barracks at Sheerness	Home	Assistant Surgeons in charge.	T. W. Olivin; R. C. P. Lawrenson.
Nereus	Pacific	Assistant Surgeon in charge.	W. E. Dillon.
Nile	West Indies	Surgeon Assistant Surgeons	J. W. Reid, M.D. G. Molloy; J. Hanbury; G. Goodman; W. D. Longfield; W. H. Cox.
Nimble	West Indies	Assistant Surgeon in charge.	J. Bradley.
Odin	East Indies	Surgeon Assistant Surgeon	W. Hoggan. J. M. Hunter.
Orestes	Cape of Good Hope	Surgeon Assistant Surgeon	C. E. Playfair. E. Olive.
Orlando	West Indies Irregular Mediterranean	Surgeon Assistant Surgeons	W. G. Goldin, M.D. W. Roche; W. F. Ryall.
Orontes	Irregular	Surgeon Assistant Surgeon	J. C. Sabben. W. Graham.
Osborne	Home	Surgeon	G. B. Hill.
Osprey	Irregular East Indies	Surgeons	D. Wilson; J. F. Fitz-Gerald (acting); J. Caldwell.
Pandora	Irregular West Coast of Africa	Assistant Surgeon in charge.	G. E. Farr.
Pantaloon	East Indies	Surgeon Assistant Surgeon	C. Atchison. G. Maclean.
Pearl	East Indies	Surgeons Assistant Surgeon	F. F. Morgan; W. G. Hill. H. S. Smart, M.D.
Pelican	Mediterranean	Surgeon Assistant Surgeon	J. C. Messer, M.D. A. C. Johnston.
Pelorus	Irregular	Surgeon Assistant Surgeon	J. R. Anderson. R. Hay, M.D.

SHIPS.	STATIONS.	RANK.	NAMES OF MEDICAL OFFICERS.
Pembroke -	Home - - -	Surgeons - -	T. W. Jewell; J. Niven, M.D.; J. C. Walsh.
		Assistant Surgeon	H. Maxwell, M D.
Penguin - -	Cape of Good Hope -	Assistant Surgeon in charge.	W. Stables, M.D.
Perseus - -	East Indies - -	Surgeon - -	J. S. Adams.
		Assistant Surgeon	J. M. Bateson.
Peterel - -	West Indies - -	Surgeon - -	W. H. Lloyd, M.D.
		Assistant Surgeon	G. Curtis.
Phacton - -	West Indies - -	Surgeon - -	J. T. Caddy, M.D.
		Assistant Surgeons	T. Roche; A. Bolton, M.D.
Philomel -	West Coast of Africa	Assistant Surgeon in charge.	J. A. Hatch.
Phœbe - -	Mediterranean -	Surgeon - -	R. D. Pritchard.
		Assistant Surgeons	J. Noble; H. D. Stanistreet.
Pioneer - -	Australia - -	Surgeon - -	W. F. MacClinton.
Plover - -	West Indies - -	Assistant Surgeons in charge.	G. Goodman; W. H. Cox.
President -	Home - - -	Surgeon - -	M. Walling, M.D.
Prince Consort	Irregular - -	Assistant Surgeons	W. Connolly, M.D. (in charge); J. T. Comerford.
Princess Charlotte - -	East Indies - -	Assistant Surgeon in charge.	J. V. N. Blake.
Psyche - -	Mediterranean -	Assistant Surgeon in charge.	T. Warden, M.D.
Pylades - -	West Indies - -	Surgeon - -	H. Harkan.
		Assistant Surgeon	J. Horrocks, M.D.
Queen - -	Mediterranean -	Surgeon - -	D. Thomson, M.D.
		Assistant Surgeons	R. Gilmour; W. Pattullo, M.D.
Racehorse -	East Indies - -	Surgeon - -	J. E. Fawcett.
Racoon - -	Irregular - -	Surgeon - -	J. Young, M.D.
		Assistant Surgeon	W. L. Powell.
Ranger - -	West Coast of Africa	Assistant Surgeon in charge.	C. Keenan.
Rapid - -	Cape of Good Hope	Surgeon - -	D. G. Pendrith.
		Assistant Surgeon	W. Harvey.
Rattler - -	East Indies - -	Surgeon - -	E. M'Sorley.
		Assistant Surgeon	B. H. M'Curdy.
Rattlesnake -	West Coast of Africa	Surgeon - -	G. F. A. Drew.
		Assistant Surgeons	F. A. Curran; J. W. Ashford
Recruit - -	Irregular - -	Assistant Surgeon in charge.	T. Cann, M.D.

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Renard	East Indies	Assistant Surgeons in charge.	A. Murphy; G. V. Hart.
Resistance	Home	Surgeon	R. C. Scott.
		Assistant Surgeon	D. R. Alcock.
Revenge	Home	Surgeons	W. Duirs, M.D.; J. Davidson, M.D.
	Mediterranean	Assistant Surgeons	R. R. Siccama; T. N. W. Colahan.
Rhadamanthus	Home	Surgeon	G. P. Cooke.
Rifleman	East Indies	Assistant Surgeon in charge.	G. Maclean
Rinaldo	West Indies	Surgeon	A. L. Archer, M.D.
		Assistant Surgeon	R. Nelson.
Ringdove	East Indies	Assistant Surgeon in charge.	J. C. Eastcott.
Rosario	West Indies	Surgeon	W. Richardson.
		Assistant Surgeon	J. Mulvany.
Royal Adelaide	Home	Surgeons	R. T. C. Scott; J. H. Patterson, M.D.
		Assistant Surgeons	W. Connolly, M.D.; J. Allen; H. A. Close.
Royalist	Irregular	Surgeon	J. Fisher.
		Assistant Surgeon	J. P. Way.
Royal Oak	Home	Surgeon	J. Jack.
		Assistant Surgeons	P. Keelan; E. J. Sharood, M.D.
Russell	Home	Surgeons	J. Bankier, M.D.; W Macleod.
		Assistant Surgeon	M. Magill.
St. George	Mediterranean	Surgeon	J. Stirling, M.D.
		Assistant Surgeons	J. N. J. O'Malley; J. Halpin.
St. Vincent	Home	Surgeon	F. M. Rayner.
		Assistant Surgeon	D. McN. Johnston, M.D.
Salamander	Irregular	Surgeon	A. Rattray, M.D.
		Assistant Surgeon	R. Cannan.
Sanspareil	Irregular	Surgeon	J. M'Swiney.
		Assistant Surgeons	T. L. Bickford; J. W. Arnott.
Sapphire	East Indies	Surgeon	W. J. Hamilton, M.D.
Satellite	Brazils	Surgeon	R. Creighton.
		Assistant Surgeon	M. A. Harte, M.D.
Saturn	Home	Surgeons	G. Yeo, M.D.; R. W. Clarke
Scout	East Indies	Surgeon	S. Wade.
		Assistant Surgeons	J. F. Parr; H. S. Lander.
Scylla	Irregular	Surgeon	W. Edney.
		Assistant Surgeons	W. Carleton; J. Craw.
Sealark	Home	Assistant Surgeon in charge.	T. H. Taylor.

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Seringapatam	Cape of Good Hope	Assistant Surgeon in charge.	W. B. Fletcher.
Severn	East Indies	Surgeon	H. Loney.
		Assistant Surgeons	W. S. Fisher; J. R. Burke, M.D.
Shannon	Mediterranean	Surgeon	W. Lawrance.
	West Indies	Assistant Surgeons	D. O'Connor; G. Robertson, M.D.
Shearwater	Pacific	Surgeon	E. H. Evans.
		Assistant Surgeon	A. Yule, M.D.
Sheldrake	Brazils	Assistant Surgeon in charge.	T. Hamilton.
Slaney	East Indies	Assistant Surgeon in charge.	F. Egan.
Snake	East Indies	Assistant Surgeon in charge.	R. Grieve, M.D.
Snipe	Irregular	Assistant Surgeon in charge.	E. W. Coleman, M.D.
Sparrow	Irregular West Coast of Africa	Assistant Surgeon in charge.	G. St. A. Campbell.
Speedwell	Irregular	Assistant Surgeon in charge.	T. Cann.
Sphinx	East Indies	Surgeon	G. L. King.
		Assistant Surgeons	J. Johnstone, M.D.; T. Coghlan, M.D.
Spiteful	West Indies	Surgeon	F. W. Davis.
		Assistant Surgeon	W. Graham.
Squirrel	Home	Assistant Surgeon in charge.	H. G. Ruby.
Steady	West Indies	Assistant Surgeon in charge.	T. Milne, M.D.
Stromboli	Brazils	Surgeons	G. Banks; E. T. Mortimer.
		Assistant Surgeon	A. A. Mullin.
Styx	West Indies	Surgeons	T. M'Gahan; D. M. Shaw.
		Assistant Surgeons	D. Donovan, M.D.; R. W. T. Gilbert; W. D. Longfield.
Supply	Irregular	Assistant Surgeon in charge.	J. K. Smallhorn.
Surprise	Mediterranean	Surgeon	J. E. Dyas.
Sutlej	Pacific	Surgeon	W. Patrick.
		Assistant Surgeons	B. Gregory; T. H. Atkinson; T. A. Roe, M.D.
Swallow	East Indies	Assistant Surgeon in charge.	J. B. Nicoll, M.D.
Tamar	Irregular	Surgeon	J. Long.
		Assistant Surgeon	T. E. Gorges.

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Tartar	Pacific	Surgeon	G. Mason, M.D.
		Assistant Surgeon	W. J. Inman.
Termagant	Irregular	Surgeon	J. C. Walsh.
		Assistant Surgeon	T. E. Gorges.
Terror	West Indies	Assistant Surgeons	T. Brisbane, M.D.; A. Crosbie, M.D. (in charge); R. More, M.D.
Topaze	Pacific	Surgeon	C. Forbes, M.D.
		Assistant Surgeons	A. Turnbull, M.D.; E. Fenn.
Torch	West Coast of Africa	Assistant Surgeon in charge.	C. J. Fennell.
Trafalgar	Mediterranean	Surgeon	R. Bernard.
		Assistant Surgeons	F. B. Hurley, M.D.; J. Simpson, M.D.; G. R. Pickthorn, M.D.
Tribune	Pacific	Surgeon	R. Irvine, M.D.
		Assistant Surgeon	W. P. Clapp.
Trident	Mediterranean	Surgeons	C. H. Chambers; H. Macdonnell (acting); B. Crabbe.
Trincomalee	Home	Surgeons	G. V. Macdonogh, M.D.; J. Ward.
Triton	Irregular / Brazils	Assistant Surgeons in charge.	A. S. Pratt; G. Bolster.
Valorous	Irregular / Cape of Good Hope	Surgeons	J. Murphy; J. Bishop (acting).
		Assistant Surgeon	J. G. Clarke.
Vesuvius	West Indies	Surgeon	T. MacCarthy.
		Assistant Surgeon	J. C. Grigg.
Victoria and Albert.	Home	Deputy Inspector General.	J. M. Minter.
Victory	Home	Surgeon	H. Edmonds, M.D.
		Assistant Surgeons	W. D. Smyth, M.D.; B. Ninnis, M.D.
Vigilant	Irregular / East Indies	Surgeon	C. D. M'Carthy.
Vindictive	West Coast of Africa	Assistant Surgeon in charge.	A. Mullan.
Virago	Home / West Indies	Surgeon	J. T. Gabriel.
		Assistant Surgeon	H. Macdonnell.
Vulcan	East Indies	Surgeons	J. Mitchell; C. R. Godfrey.
		Assistant Surgeon	G. Mair.
Wanderer	Mediterranean	Surgeon	L. H. J. Hayne, M.D.
Warrior	Home	Surgeon	S. L. D. Wells.
		Assistant Surgeons	W. J. Asslin; E. W. Coleman, M.D.; F. B. Hurley, M.D.; R. Grieve, M.D.

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Wasp - -	Irregular - -	Surgeon - -	P. W. Govett.
		Assistant Surgeon	J. A. Allan, M.D.
Wellesley -	Home - - -	Surgeon - -	C. T. S. Kevern.
		Assistant Surgeon	C. Strickland.
Weser - -	Mediterranean -	Assistant Surgeons in charge.	J. F. Kynsey; J. Middleton, M.D.
Winchester -	Home - - -	Surgeon - -	W. B. Dalby, M.D.
Wrangler -	West Coast of Africa	Assistant Surgeon in charge.	C. F. Williams.
Wye - -	Irregular - -	Assistant Surgeons in charge.	R. F. Bridgford; C. L. Cunningham.
Zebra - -	West Coast of Africa	Surgeon - -	T. Craig.
		Assistant Surgeon	J. O'Brien.